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ORIGINAL ARTICLES.

CURE BY FAITH.

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The medical art has been associated from time immemorial with the Black Art. Nor is it dissociated from it to day, except among the few in the profession who may be said to form its advance guard—its skirmish line in the forefront of medical progress. Among the more ignorant, mysticism, sorcery, prayer and incantation are still practiced in the cure of disease; among the more learned the agency of prayer is not altogether ignored, and the practice of mysticism and unfounded pretension is by no means uncommon, if, indeed, it be not the rule. Every practical-minded physician takes into account the idiosyncrasies of the subjects he has to deal with, as well as the peculiar psychical laws to which he has to conform, and modifies his methods accordingly. He must recognize that it is human nature and the laws of mind as well as matter with which he has to contend, and not an abstraction latinized into form and substance; that it is a living, thinking, feeling, human being whose varied activities he has to control and harmonize, and not a thing, with "a habitation and a name," to be combated or exercised. And if the practice of mysticism and the resort to cunning devices serve the purpose of curing his patient, he does not shrink from using them. These are not unfrequently the most potent agencies of his craft—the most effective means of fixing the attention of the patient, determining the direction of his natural forces—the *vis medicatrix nature*—and resolving his malady. The element of faith is a powerful factor in every case. Faith-cures are, therefore, daily occurrences in the practice of any physician of large experience and intelligent effort. It is this fact which makes him indifferent to the marvels of that kind which are of so frequent occurrence, and which to those who are uninitiated in the mysteries of the human economy are so astonishing.

The rational element of the profession—for the profession has always possessed a rational element, which has kept the lamp of discovery burning—has been slow to recognize what are popularly called "Faith cures," or cures of disease by invocations and prayers. There is a large party in the profession to-day that disputes the facts on which the proposition rests. Nevertheless, the truth of cures by prayer may be regarded as abundantly supported by irrefutable evidence. Faith-cures of this character must be admitted as a phenomenon of frequent occurrence in our midst; and while every unprejudiced and candid observer is not at liberty to doubt the fact—while he must, in justice to his logical intuitions, frankly concede that cures of serious disorders are effected by the laying on of hands, and by prayers—he is certainly at liberty to dispute the element of the miraculous, which is claimed to enter into them by the ignorant charlatans who trade in credulity and practice jugglery. When a reputable man declares that he has been a

cripple for years, by reason of feeble and contracted joints—an infirmity often due to defects of nerve-centres, having no organic basis—and that he was cured of his infirmity in a moment, by a brief prayer, one may pity him, but it is idle to doubt him. Belief in such a one is stronger than sense, and affords the charlatan the most effective means of forcing into action a nature too sluggish to be acted upon by more rational means.

The interest so generally manifested in so-called "faith-cures" would flag or die out altogether if the rationale of them were understood. Indeed, they rest on mysticism and would cease to be if the processes by which they are effected were brought within the reach of the average sense. There is no miraculous or supernatural element about them, of course. All nature is a unit and comprehends the infinitude of things, sensible and supersensible. The miraculous or supernatural, so called, consists of phenomena, the interpretation of which has not yielded to scientific or known data. They pose outside the present limitations of the demonstrable. For this reason the multitude insist upon regarding them as superior to the natural—as supernatural—ignorantly ignoring the proposition, which is accepted by all advanced thinkers of every school, that Nature comprehends the universe of cause and sequence, and that, therefore, all phenomena are within the jurisdiction of her laws. Cures of disease by jugglery or by prayers must, therefore, come within the category of natural methods in therapeutics, and Faith must be received into the rationalist's pharmacopœia. It is unquestionably one of the most potent agencies of the mental economy. Faith is a mental act—a conclusion of consciousness. Again, it is a *strong believing* with respect to possibilities, the *modus operandi* of which is unknown, or, at least, unknown to that particular individual whose consciousness has been thus powerfully impressed. Its influence is not limited to the domain of religion or emotion. We repeat that Faith is a mental force exerted in the direction of a particular object. It may be claimed to be a leading factor in effecting vital changes in the economy—an indispensable factor, without which many derangements and defects of the organism would remain irremediable. What would become of the marvelous effects attributed to the influence of infinitesimals were it not for the existence of the faith element? As for us, we are more surprised at the alleged effects of minutely attenuated medicines than we are at those of prayer. Some of the cures effected by the high potencies are more marvelous than the so-called miracles of the saint or the religious devotee. For example, in a very readable article entitled "The Power of the Specific Remedy," by Dr. P. P. Wells, which was published in the *Homœopathic Journal of Obstetrics*, for August, 1881, may be found the following statement of the reduction of a *dislocated womb with adhesions* by a specific remedy:

"After a careful study of the symptoms more immediately referable to the displaced and distorted organ, and those of the nervous strain supposed to be resulting from these, a remedy was selected which was most like in its ascertained action on the living organism. It was

first given January 8, 1881. From this to the last week in March the patient was under the influence of the remedy, taking it at intervals of a few hours, with a gradual subsidence of the more troublesome reflex symptoms. When at this last date, while standing in the middle of the floor, she screamed, and said she felt a painful sense of something tearing away in the pelvis, and immediately expressed a sense of relief of the pains, and sense of bearing down in this part which had troubled her so many years. Inspection with the speculum and sound revealed the uterus in its true position, and wholly free of its flexion. The concomitant symptoms of these mechanical evils gradually disappeared, and this long-suffering patient may be looked upon as cured of retroversion and flexion of the uterus, with adhesion of the organ to the tissues with which it had come in contact in its abnormal position, by the action of the specific remedy, without aid from surgical or mechanical interference of any kind whatever."—p. 48.

It will be observed that neither the medicine nor the dose is mentioned in the report of the above case. The report is equally silent in respect of the individual whose womb was the basis of the experiment. We have been informed by the physician who had the case in charge that the lady was an hysterical subject, and that the medicine administered to her was *likum tigrinum*, first of the 200th potency, and later of the 5,000th potency! Neither the dose nor the drug, however, is material to our argument. The proposition that any drug of any strength should possess the power to work the marvel alleged in the above case, puts a greater strain on our credulity than the raising of Lazarus by Jesus, or the cure of a pair of crippled knees by prayer. The gentleman who reports this case believes that the effect alleged was due to the drug. But he is skeptical of the miraculous, strange to say.

In the number for February, 1883, of the same periodical, may be found the statement and conclusion of Dr. W. F. Roth, a physician of good repute, scarcely less astonishing than the case above cited. The author of the statement had a case of breech presentation under his charge which he wished to have reversed. Labor was not yet due, and the time, therefore, for turning by mechanical means had not come. Meanwhile, he proceeds to test the vaunted powers of *pulsatilla* to convert an abnormal presentation into a normal one. We quote as follows:

"Now, I concluded to banish my skepticism of the action of *pulsatilla*, and try what it would do at this late [sic] period. Mark, the symptoms of breech presentation were conclusive. I gave a dose morning, noon and evening of the thirteenth, two days. The third day I made an examination, and to my great surprise found the position normal, head resting in the left anterior iliac fossa. I gave no more medicine, and in one and a half weeks the lady was delivered, having the satisfaction of a normal and easy labor. Such is the case in truth, and the action of *pulsatilla* must be admitted."—P. 260.

Dr. Roth is by no means addicted to superstition; nor does he believe, we feel safe to affirm, in the efficacy of prayer in curing disease. His credulity is of a far more wonderful kind—a credulity more marvelous, indeed, than the fact which he attests.

We may not know all the senative and therapeutic agencies involved in the action of a specific medicine, nor those exerted by a strong-lunged orator in prayer for the same end; but we are in a position to affirm that a strong belief in the efficacy of either, on the part of both dispenser and recipient, is essential to the production of a beneficial result. Certainly the patient must believe—have faith—in the power of medicine and in the skill of the doctor, and the doctor must likewise have faith in it as well as faith in himself, or the medicine is shorn of the larger part of its sanative virtues and the doctor of his success. So, too, the subject of prayer must have faith in the efficacy of prayer, or

the result is *nil*. For this reason is it that strong positive natures, "weak in the upper story," ignorant alike of letters and the medical art, often make successful physicians; while scholars with wider scientific resources may fail to win a following or gain a practice. Thus the late Dr. Copeland, of England, though pre-eminently qualified for his profession, so far as scholarship goes, never got into practice. His patients let him gravitate to the library, where he produced the compendious *Dictionary of Medicine* which bears his name. How true are the words of Burton: "An empirick oftentimes, or the silly chirurgeon, doth more strange cures than the rational physician. Nymanus gives a reason because the patient puts his confidence in him, which Avicenna prefers before art, precepts, and all remedies whatsoever. 'Tis opinion alone (saith Cardan) that makes or mars physicians; and he doth the best cures, according to Hippocrates, in whom most trust!"—*Anatomy of Melancholy*.

The writer had an opportunity early in his medical practice unwittingly to test the efficacy of "Expectant Medicine" and the power of faith in the cure of disease. It so happened that he studied homeopathy after he began general practice, and consequently was often under the necessity of reading up the symptoms of his cases in the light of the pathogenesis of the remedies before making a prescription, believing that it was essential to find the true specific in every case in order to effect a cure. On occasions of uncertainty as to the choice of a true specific, it was his custom to prescribe a few doses of *saccharum lactis*, with the promise of calling again in a few hours if the case was serious, or if the case was an office patient, requesting that he call again on a stated day. Meantime we would read up the case in the light of drug-proving, and make ourselves ready for the patient at his next call. Again and again the *saccharum lactis* acted "like a charm," proving so efficacious that in many cases, even in cases as serious as dysentery, he thought it the part of wisdom to continue "the same medicine," *pro re nata*. We feel certain that no potency, high or low, of the most approved medicine could have given better satisfaction to either patient or doctor. In like manner and with like results, the high potencies of Jenichen and Dunham (200th) were tested by us side by side with *saccharum lactis*, in certain cases—cases in which we were certain of the confidence of the patient. The experiment was equally successful. For the same reason, different results with the same remedies, or the same result with different remedies, are frequently obtained by different physicians, as all know who have compared notes with their colleagues. For instance, Dr. A. finds *iodium* the principal remedy in croup; Dr. B. generally relieves the same malady with *kali bichromicum*; while Dr. C. never fails to cure his cases of the disease by a series of medicines *a la Benninghausen*. Nothing is more instructive from a philosophical point of view than these facts of medical experience which one may hear detailed at medical clubs or medical societies *ad nauseum*. While we would not use such facts to discredit efforts to arrive at certainty in selecting medicines, nor to underrate the value of the proper remedy, we may not allow the occasion to escape us to draw the proper and logical inference in justice to the truth of science, viz., that Nature is the great factor in the cure of disease; and that he who can most effectively utilize that factor in the treatment of disease is the most successful physician, be his agents and methods what they may.

Do we sufficiently recognize, then, the power of faith in the cure of disease? Are we not prone unduly to vaunt the influence of medicaments in disease? Do we not too often attribute results to remedies which in justice belong to Nature? Let us not be enslaved by terms in dealing with such subjects. What do we understand by Nature? and what by Faith? The "faith" tow high we refer is identical with the "Expectation" of

physiologists, and the "Imagination" of Locke and the old-fashioned psychologist. Faith is a correlative of Mind. All these terms refer to mental states, an active condition of the whole mind toward a specific object—Mind, be it observed, being the *vis medicatrix naturæ* of Cullen, and the Nature of Hippocrates. When the Mind, which is the presiding genius of the living organism, its creator and preserver, is powerfully exercised toward a specific object, it is difficult to set limitations to its powers for good or evil. Its influence over the organism, in health or disease, is so great as to justify the claims of its powers by the metaphysicians of the past, who insist that health practically consists in believing one's self well, and disease in believing one's self sick. Thus, saith Feuchtersleben, in his *Dietetics of the Soul*:

"As a hidden beauty of the features bursts forth from the face of a good man, so also may the beauteous treasure of health be won by a single and complete resolution."—p. 43.

Again: "Sometimes, nay, scarcely ever, would disease cling incurably to us in the season of youth if we did not ourselves believe in it and foster it."—p. 33.

And again to the same effect:

"Esteem your brother to be good and he is so. Confide in the half virtuous man and he becomes wholly virtuous. Encourage your pupil by the assumption that he possesses certain faculties and they will be developed in him; look on him as incapable and unqualified of cultivation and he continues so. Pronounce yourself in health and you may become so."—p. 59.

And, again: "Thou art free from all suffering if thou wilt be so; the most miserable of all states is the inability to will anything; feel this and thou wilt be all that thou wast—and that thou canst be."—p. 67.

Of course, this is bad philosophy in the larger sense, but there is a grain of truth in it. It is true to this extent, that one with a strong mind may make himself mentally and physically all that is consistent with his environment. The influence of the conservative power of the organism, call it by whatsoever terms one pleases, is observed not only in the phenomena of growth and repair, the course of maladies, knitting fractured bones, and the healing of fleshy wounds, but in many other wonderful and equally pronounced ways, under the influence of medicine and otherwise. It may produce paralysis, and cure it; destroy the eyesight and restore it; paralyze the senses of taste, smell, hearing and feeling, and restore them with equal facility. An interesting case in this connection was related to us by our friend, Captain H. P., late of Company A., 89th Regiment, N. Y. Volunteers. This gentleman is a man of strong mind and resolution, and by no means given to the imaginative. While deploying his company in a sharp skirmish in the battle of South Mountain, in the late civil war, a bullet whizzed close to his ear, leaving the impression on his mind that his ear was completely taken off. He was too closely occupied in the engagement to give it any attention, but he kept thinking of the grave loss he had sustained in the mutilation, and feeling that he would have preferred to have been shot dead than to be thus mutilated. He felt the warm life blood trickle down his neck and run down his bosom. As the minutes passed by he felt the fluid thicken and dry on his neck and chest, producing a stiffened sensation. There was a sense of heat and burning in the ear itself. When the heat of the engagement was over he appealed to a comrade to know how he looked with his ear shot off. "Why," said his comrade, "your ear is not hurt." Then for the first time he made bold to examine his ear himself, and found that it had not even suffered a scratch. It should be stated that Captain P. had previously seen a soldier who had had an ear shot off.

We find a similar illustration of the power of the mind over the body recorded by the late Dr. Tuke in

his work entitled "*Influence of the Mind upon the Body*." This case is so remarkable that we make a liberal citation from it:

At the battle of Wagram, Nov., 1809, one Mons. Boutibonne was actively engaged during the whole of the affray, which lasted the greater part of the day. The ranks had been terribly thinned about him by the enemy's shot, and "while in the act of reloading his musket he was shot down by a cannon-ball." The impression produced on his mind was that the ball had taken off both his legs just below the knees. He fell backward to the ground, his senses being completely paralyzed by the shock, in which position he lay quite motionless, not daring to move a muscle for fear of fatal consequences from hemorrhage, during the remainder of the night. At early dawn on the following day he was aroused from a troubled slumber, by one of the medical staff, who came round to succor the wounded, to whom he made known his supposed condition. "Ah, touchez-moi doucement, je vous prie; un coup de canon m'a emporté les jambes!" The surgeon assured him that he was unhurt and told him to get upon his feet. "Whereupon I sprang up in utter astonishment," to use the gentleman's own words, "and stood firmly on the legs that I believed had been lost to me forever. I felt more thankful than I had ever done in the whole course of my life before. I had not a wound about me. I had, indeed, been shot down by an immense cannon-ball, but instead of passing through my legs, as I firmly believed it to have done, the ball had passed under my feet and had plowed away a cavity in the earth beneath, at least a foot in depth, into which my feet suddenly sank, giving me the idea that I had been thus shattered by the separation of my legs."—p. 134.

To the same class of psychical phenomena belong certain effects, wrongly ascribed to the action of remedies, the laying on of hands, amulets and prayers. The writer gave a few grains of *sugar of milk*, medicated with one drop of the decillionth alcoholic dilution of *nitric acid*, on one occasion, to a man of strong physique, suffering with secondary syphilis. Lest he might think the small tasteless dose inadequate to so grave a condition, we took pains to impress on his mind the fact that the drug was one of great power, and he must on no account increase the dose. Our precaution was superfluous. The first dose produced violent retching, and cramps in the bowels, which symptoms being followed by a second dose, the patient threw away the remainder of the medicine, declaring with bitter oaths that he would not take such poisonous stuff, nor would he have anything to do with doctors who dealt in it.

Dr. Tuke, in the work cited above, quotes from Dr. Denaud's great work, entitled "*Essai de physiologie philosophique*," the following observations illustrative of the same principle:

"The house surgeon administered to [100 patients in a hospital] such inert draughts as sugared water; then, full of alarm, he pretended to have made a mistake in inadvertently giving them an emetic instead of *syrup of gum*. The result may be easily anticipated by those who can estimate the influence of the imagination. No fewer than 80—four-fifths—were unmistakably sick. How many of the rest suffered from nausea is not stated."—p. 96.

A still more forcible illustration of the power of "Expectation" in controlling the action of a medicine is related by Crichton, who quotes from Pechlin "the case of a student at Leyden, who, in want of a purgative, looked in the index of a medical work for the word 'pill,' which he supposed must be a purgative, and took one containing *opium*, *hyoscyamus* and astrin-gents, and was accordingly purged as desired."—p. 98.

Every physician appreciates the importance of securing the confidence of his patient and of impressing on the mind of the latter a strong belief, not only in his

recovery, but also in his mastership of the case, knowing full well that these points once secured success is assured in all curable cases. We make bold to say that failure on these points is far more disastrous to his patient than any mistake he may make in selecting the remedies. Indeed, success at the bedside rests principally on the ability of the physician to conceal his own ignorance or stupidity and to possess and hold the confidence of patients, thus securing the co-operation of the patient's mind. The doctor's skill is shown more in the command of this kind of wisdom than in the exhibition of any learning he may possess. Nay, stronger than this: It is the doctor's characteristic trait, the trait which distinguishes him from other men and the professional plodder. Our friend, the late Dr. John F. Gray, possessed this professional quality in a marked degree. His *personal* influence on his patient was most marked, giving him an advantage at the bedside over many of his colleagues whose learning and scientific attainments were greater than his. We have heard it remarked that in many serious cases of illness to which he was called in his prime, the patients began to improve the moment he spoke to them. And many—possibly the most—of these particular cases knew they would get well if he were called. *They believed on him.*

We cannot forbear to cite in this connection a case which we find in Dr. Tuke's *Influence of the Mind on the Body*, illustrative of this phase of our subject. It is quoted from Bonchut, and is that of a little girl who had become paralyzed from fear. The father had for months tried the skill of local physicians, and exhausting it, in despair took his daughter to Paris. "The girl, who had heard of the great city, its great physicians, and of the Hotel Dieu spoken of only in the most extravagant way, arrived full of faith to be cured. In the evening I saw her dumb and paralytic; and, displeased at finding such a patient in the hospital, made no prescription. She was in the same state the next morning; I put off all treatment during the day. During the day she began to speak, the day after to move her limbs, and on the third day she walked about the halls completely cured. Her faith had saved her."—p. 343. What an opportunity was here lost by the distinguished Frenchman to work a miracle with a prayer, an invocation, or an alterant dose or an infinitesimal!

We conclude as we began: Nature is the great healer; the medical art is auxiliary thereto. By "nature" we mean what the great master of the medical art meant by it—the mental force of the individual, that energy which is generated by the brain and spinal cord. It matters not by what terms we designate that force—vital principle, or mental principle, or of what nature we regard it—material or immaterial, physical or psychical. To us these terms are represented by Mind. The mind is the body's sentinel, its co-ordinating principle, in health and disease. Its laws comprehend the divine order in the economy, and work out in our bodies and brains the purpose of the Supreme Beneficence.

PROCESSES OF MASSAGE.—Continued.

By GEO. H. TAYLOR, M.D., NEW YORK.

5. DOUBLE PRESSURE-MOTION TO THE FOOT.

Position.—Reclining.

Action.—The foot to receive the process is directly in front of the sitting operator, who places his two hands flatwise against the sides of the foot and compresses it strongly between them; at the same time he communicates to it a rapid reciprocating motion, much the same in form as when the two hands are rubbed against each other with nothing included between. In this way the foot is in reality *rolled*, the massage consisting of the pressure and motion against each other of the constituent fibres composing the part. The hands must not

glide upon the coverings of the foot. This process may continue for a few moments, or till the operator's power declines. To secure the *full* effects of the process, mechanical apparatus driven by unlimited power is necessary.

Effect.—Similar to those previously described: physical energy communicated by the processes merges into and reinforces physiological processes, first, conspicuous as heat; next as increase of local blood; then as diminution of local suffering in other parts of the body, as head, spine, etc., and cumulatively, as improved distribution of the circulation, contributing with associated processes to increase of vigor and health.

6. LEG WRINGING.

Position.—Reclining on a couch in easy position, one leg extended horizontally so that the operator shall have free access to it.

Action.—The two hands of the operator grasp the limb from each side so as partly to encircle it with each hand, the thumb and the finger extending in either direction so as to grasp as far as possible, the two hands having an inch or two of space between them, one being placed above the other on the limb. A *twisting* motion is now given by each hand in opposite directions; that is, one hand twists the flesh it firmly holds in one direction, say to the right, while the other hand moves the contents of its grasp to the left; the double action producing a wringing of the flesh, much the same as when water is pressed or wrung from wet clothes by means of the tightening of its fibres secured by a similar process. This action is repeated two or three times under the same double grasp, when the hands are moved so as to include a fresh field of action, where it is repeated in a similar way, and so on till the whole limb has been subjected to the process.

Effect.—Mechanical displacement of fluids, both within and without the circulatory vessels, and which includes not only the blood of both kinds, but the contents of the lymphatics. The process promotes muscular, and correspondingly diminishes nervous nutritive support, and effects proportionate changes in the manifestations of these two orders of vital energy.

7. LEGS TRANSVERSE PRESSURE-MOTION.

This is the special application to the lower limbs of No. 1, under which the process is described. In case the limb or some portion of it is too large for the proper application of No. 6, the *transverse pressure-motion* is substituted for it. For the thighs, in the forward lying position, it is peculiarly applicable.

Effect.—The same as No. 6.

8. THIGH ROTATION.

Position.—Reclining.

Action.—With one hand the operator grasps the leg near the ankle, with the other he seizes the knee and raises the thigh till it is at right angles with the body. He then causes the knee to describe as broad a circle as possible, by carrying it near to the body, then laterally and downward nearly to a line with the foreleg, and thence returning at the other side of the circle to the starting point. In performing this rotary motion it is essential that the foot, which is guided by the other hand grasping the ankle, also describes a similar circle of the same size, care being taken during the process to preserve perfect parallelism between the axis of the foreleg and the axis of the body. If this caution is observed, the processes will be perfectly agreeable to the patient. If the parallel of the axis of the foreleg and body is not maintained, it is possible that the ligament joining the leg to the body (hip-joint ligament) may be unduly strained by the twist which is thus given it. The process may be repeated a half dozen times in each direction, and applied to both legs, unless a special infirmity requires restriction to one leg.

Effect.—Rotation of the thigh causes alternate tension and relaxation of all the small muscles, interior and exterior, which connect the thigh with the pelvic bones. The motion described causes the distance between the points of attachment of the muscles which connect the pelvis with the thigh bone which is thus moved, to increase and to diminish alternately to the greatest extent the mechanical disposition of the parts will allow. By this means the fibres and the cells constituting the muscles engaged are subjected to the same mechanical changes of form, and the nutritive fluids in contact to the same changes of place as occur in exercise, but with the radical difference that the will and the nervous system are in abeyance.

The consequence is that the fleshy masses about the hips located either side of the pelvis are made the recipient of increased nutritive support, which immediately detracts from the surplus contained by the pelvic organs. These latter are, in other words, unloaded of their excess of blood, and hyperemia of these parts, including the lower bowel and the generative intestine, is relieved.

The effect is that usually denominated revulsive, except that every repetition of the process increases the tendency to self-perpetuation of the improvement.

9. LEG TWISTING.

Position.—The same.

Action.—With the lower leg resting on the knees of the operator, he grasps the foot with one hand and the knee of the same leg with his other; then turns the leg on its axis so that the foot lies as far as it may to one side, and immediately returns it to the opposite side also as far as the parts affected will allow, thus causing the leg to be twisted on its axis; the motion may be repeated a dozen times.

Effect.—This is similar to that produced by No. 8, except that fewer muscles of the thigh are engaged and a larger number of those of the leg, affording corresponding differences in details of effects produced. It is applied for the same purposes.

10. LEG LONGITUDINAL PRESSURE-MOTION.

This is special application to the lower extremities of No. 2, which see for description of process.

Effect.—This is usually applied in connection with other processes for the legs, to increase local nutrition, the local heat production, and the concomitant revulsive effects.

HANDS.

11. FINGER ROTATION.

Position.—Reclining or lying.

Action.—A hand of the patient is firmly held in one of the operator's, while a single finger is grasped by his other hand and caused to rotate in as large a circle as the parts will bear. The circuit of motion may be described a dozen times in each direction. After this another finger is subjected to the same process, and so on with each finger till all, including the thumb, have been thoroughly subjected to the process.

Effect.—The joints are rendered supple, the muscles of the fingers and also of the hand are increased in power, and the local heat developed.

12. FINGER TWISTING.

Action.—The hand being firmly held, one finger is grasped between the thumb and fingers of the operator and gently twisted to the right and to the left, on its axis, a half-dozen times or more. This process is applied in turn to all the fingers and to the thumb. It is made agreeable to the patient by beginning gently and gradually increasing it in extent, while at the same time the grasp of the finger is renewed at slightly differing locations as the process progresses. The same remark applies to similar processes at other parts of the body and limbs.

Effect.—Adds to suppleness, removes stiffness and swelling (chronic), and serves other general purposes of massage.

13. HAND TWISTING.

Action.—A hand of the patient being very firmly held at the wrist by one hand of the operator, he seizes the same at the fingers, so as to include them in his grasp; he then, with a suitable twisting motion, causes the hand of the patient to become twisted, first in one direction and immediately in the opposite. This twisting may be repeated in each direction ten or more times, with a degree of force adjusted to the feelings of the patient.

Effect.—The interosseous muscles and all other fibres, connecting, tendinous and otherwise, are made alternately tense and relaxed, with the addition of the strong pressure always incident to the act of twisting. This superinduces in the part subjected to the action all the best effects of massage, as previously detailed.

14. WRIST ROTATION.

Action.—The forearm is grasped firmly, just above the wrist, by the operator, while he grasps the hand of the patient with his other hand, and causes the hand thus fixed and grasped to move in a circle as wide as the mechanism of the parts will allow; it may be made to rotate a dozen times in each direction.

Effect.—This process engages the muscles in general of the lower arm to the elbow, whose functions consist in effecting ordinary movements or exercises of the hand. It strengthens the muscles, renders the parts supple, and produces the usual effects of massage in respect to heat, circulation, nutrition, revulsion, etc.

15. FOREARM ROTATION.

Position.—Reclining, the arm extended at right angles with the body.

Action.—The operator holds immovably the arm of the patient, just above the elbow; with his other hand he grasps the wrist, and with it describes a wide circle, so that at one part of the revolution the forearm is nearly in a line with the upper arm, while at the opposite part of the circle described it is almost in contact with the upper arm. Although the elbow joint is a hinge, the rotary motion is practicable because the action of the shoulder joint compensates for the deficiency of the elbow joint in performing the motion.

Effect.—The same form of massage (without pressure) is supplied by this process, as has been described of the wrist and other parts, when the effect is due to stretching and relaxing the muscular and connective fibres.

16. ARM WRINGING.

Position.—Same as in 15.

Action.—The arm of the patient is seized at the shoulder by both hands of the operator, which grasp and include the flesh of the arm at a little distance apart. Now, by causing each hand to move independently in opposite directions, the mass of included flesh is subjected to a vigorous *wringing*, as has before been described, as applied to the leg. The process is applied to every portion of the arm as the hands of the operator recede from the shoulder and glide downward, applying the process at each stage till the whole arm has been subjected to the process.

Effect.—This application combines in the highest degree the special effects of massage by reason of the superior mechanical conditions. The arm is easily grasped with the double grasp; the motions are easily given with great pressure, and the compression caused by slight twisting of fibres is additional to the direct pressure afforded by the grasping. It urges fluids in their appointed courses, whether contained within the vessels or in the stage herein designated as intervascular. It urges blood to the skin, increases heat, removes excess of blood from the head and upper portion of the spine.

The process fulfills in a high degree all the chief purposes of massage.

17. ARM ROTATION.

Position.—The same.

Action.—The arm of the patient is taken hold of by the operator, both at the elbow and hand. The elbow is then caused to traverse a circle as broad as the length of the upper arm will allow, of which the shoulder is the centre. Care should be taken that the upper portion of the circuit traversed be made as broad as the lower, by carrying the arm in the upper part of its course near to the head, so that all the muscles connecting the arm with the chest may be thoroughly and equally acted on. Six or eight revolutions in each direction may be given.

Effect.—The motion alternately stretches and relaxes all the muscles connecting the chest with the arm, affecting them similarly to the longitudinal pressure-motions described in No. 2. This effect extends beyond those directly attached to the arm, to those of the shoulder, shoulder blades, and even to those between the ribs. Many of these, particularly the intercostals, subscapular, etc., are quite beyond the reach of ordinary or pressure-motion massage, being protected by bone.

This process also has the direct effect of increasing the capacity of the chest and the power and extent of its rhythmical or breathing motions.

The rotary or circular motions above described, and applicable to the legs, arms and trunk, may, for distinction, be called the *non-pressure* processes of massage, because the processes are limited to stretching and contracting the muscles engaged in the motions. The advantages of this class of processes are that they are always agreeable to the patient, can never exceed the capacity of tender and sensitive parts to receive motion, as is possible in case of pressure-motions, and that, if regarded as a species of exercise, they are entirely passive, which implies that the muscular nutrition, and therefore muscular power, are increased by their use, while nervous manifestations are correspondingly diminished.

18. DOUBLE PRESSURE-MOTIONS OF THE ARMS AND LEGS.

Position.—Reclining.

Action.—The two hands of the operator are placed against opposite sides of the part of the limb nearest the body; then while compressing strongly the flesh, a rapid alternate or reciprocating motion is applied to the part; the hands slowly glide downward, so as to include a fresh portion of the limb, while the motion and pressure is continued, and so on till the whole of the flesh of the limb has been submitted to the process. The same process may be applied in turn to all the limbs.

Effect.—The motion with pressure is in this process applied transversely to the average direction of the fibres, nerve conductors and vessels. The mechanical effect is that of separation—*division* of the fibres that are from any cause adherent. It therefore becomes a most effective means for removing adhesions producing stiffness, contractions, and consequent deformities of the limbs. The motion is also a powerful incentive to nutritive changes in the vital muscle cells, and therefore opposes nervous irritability. It increases oxidation, and therefore removes obstructive sub-oxides from the fluids. The very large amount of interior friction of fibres, cells, membranes and fluids, causes unusual development of heat, the physiological alternative of vital energy, which is therefore promoted by the action. The above described process is true massage, in the best understanding of the term, including both method and effect. The one difficulty about the process, however, nearly precludes its employment in the

mode described. This is the rapidity with which the power of the operator is transmitted to the invalid, thus becoming contributory to his power. To apply conjoint pressure and motion, through both the operator's hands, speedily exhausts the most affluent resources of the most robust operator. This he feels, and, in consequence, instinctively avoids applying any considerable amount of those processes which contribute most to increase the energy of the patient. This is indeed his wisest course; for since his power is limited, it is employed to best advantage when well husbanded.

It, however, follows that there is a stage in the advancing progress of every invalid toward health, when the power afforded by the living operator is inadequate to the needs and insufficient for the receptive capacity of the invalid. This stage in general arrives when the various parts entering into the structure of the body have acquired a certain increase of capacity for physiological change and "metamorphosis" of tissue. This may occur long before the localized disease—if this consists of pathological alterations of structure, or local accumulations of organic substance of low vitality, or any matters capable of resisting the ordinary physiological provisions for oxidation—is removed. The curative efficacy of processes applied by the operation in these cases becomes insufficient, the deficiency being not in kind, but in quality and degree of the remedial application.

Hence it is apparent that energy proceeding from a more abundant, or rather from an inexhaustible source, is required to perfect cures in cases of serious localized disease.

The process last described is applied by suitable mechanism, under the perfect control of the patient, however helpless, and practically secures all and more than, as above stated, is due from massage applications.

THE DIGESTIVE ORGANS.

Inertia of the digestive organs is an almost invariable accompaniment of chronic invalidism under whatever name. Digested products find their way with difficulty through the obscure channels they must pass to enter the circulation, and residual products and rejected matters with difficulty make their exit from the body. Spontaneous chemical changes are immanent or active in nutritive material thus unemployed, even within the vital organism. These new products greatly harass the feelings, giving rise to new and strange manifestations, while the decline of organic rhythmic motions, which in health includes the digestive organs in perpetual mechanical change, becomes painfully obvious.

One reason for sluggish digestion is the slow and imperfect demand on the part of the system at large for digested products. It is clear that need of support by the active tissues is the natural incentive to digestion, and that the reverse, that is that the ingestion of food, does not, as is frequently presumed, increase its use by the system. It follows that the primary obstacle to digestion is in the tissues, which have little need and therefore make small demand for support. It is the purpose of massage to legitimately increase such need by removing all physical obstacles, such as interstitial uncompleted chemical products, and the mechanical impediments in the course of the career of nutritive supplies. Nutritive supplies require to be urged along the appointed course whereby they fulfill nutritive uses, instead of offering impediments in the secretions and to normal acts of physical change.

Another cause of sluggish digestion is the imperfect removal both of waste and of residual. The former is removed by oxidation, the latter by the spontaneous motions of the digestive organs, consecutive upon movements of respiration. This latter causes the very extensive serous coverings of the digestive tubes to *glide* upon each other; a motion eminently calculated to promote *osmosis*, or absorption of digested products and secretion of the fluids whose use and effect is to reduce aliment to a state of fluidity. The same cause also promotes those

motions of the digestive cavity which urge the alimentary contents along their appointed course and terminate in excluding the exhausted residue.

The constant necessity for these mechanical changes of the digestive organs, during both sleeping or waking hours, is thus manifest. Digestion is otherwise incomplete. And since motion of the organs is a necessary part of these functions, no restoration of their power is possible that does not also include the restoration of this mechanical or muscular property. The direct cultivation of the conditions for and power of spontaneous motion is, therefore, the philosophical as well as the most rational and practical resource of the dyspeptic, whatever be the special subjective symptoms from which he may suffer.

This view of the connection of mechanical motion with the digestive needs is fully justified by observation of the adaptation and requirements of the lower animals. The mechanical structure of all quadrupeds enforces the communication to the digestive organs of a very large amount of motion with every form of locomotion. These organs being suspended between the four limbs are subjected to reciprocating motion, both perpendicular and lateral, at every step. The human being has similar needs, which, however, requires often to be supplied by art, especially when the faculty has been long lost, as in chronic ailments; to cultivate the power of spontaneous healthy motion of the abdomen is the leading requirement. This cultivation for the weakly must begin as some of the forms of massage.

19. KNEADING OF THE ABDOMEN.

Position.—Reclining; the knees a little bent.

Action.—One or both hands of the operator are pressed flatwise upon the abdomen of the patient, so much as to prevent gliding or slipping, and so that the abdominal mass to which the hands thus placed adhere, shall, on moving, be moved with the hands as a single object.

A rather slow transverse motion is now transmitted from the hands to the parts upon which they rest; the pressure must be sufficient to cause motion and displacement of the interior contents of the abdomen at every motion of the hands of the operator.

20. KNEADING, SECOND METHOD.

For more decided effect.—One hand wholly or partly clenched as a fist is placed firmly against one side of the abdomen while the other is placed at the opposite side, the operator standing and leaning over the patient. One hand now presses very steadily and strongly against the abdomen at right angles to its surface, sinking into its soft mass which yields before the pressure. The pressure of the hand is then removed, and simultaneously therewith the same kind, degree and direction of pressure is applied with the other hand at the opposite side. The included substance of the abdomen is thus impinged upon with sufficient force to disturb and even shift the position of the contents to the right and left, alternately. The position of the two hands should be changed from time to time, so as to include all the different portions of the abdomen in the action described. This operation may be continued for several minutes, always deferring, as to time and force of impingement, to the feelings of the patient. It may be remarked that in case of special weakness and especially if there be tenderness and sensitiveness developed under the operation, the manner of the application should be modified to suit the case, and that in general the method No. 1 should precede and prepare the way for No. 2.

21.—KNEADING, THIRD METHOD.

The most effective form of kneading the abdomen, requires the position of the patient to be face downward, lying. The location of the digestive organs is then similar to that of inferior animals. The advantages of the position are these: Every impingement upon or action received by the depending part is doubled by the

gravitating counteraction which necessarily follows. This doubles the motion and its effect. Besides, in the forward lying position, the gravitation of the unsupported digestive organs is *from* instead of *toward* the pelvis. This removes from the lower bowels such obstacles as are caused both by pressure and by folding of parts. This alone is not unfrequently a potent curative aid, for the removal of mechanical obstacles to the pelvic circulation is practically equivalent to removing local pelvic hyperemia and its various outgrowths.

To apply kneading to the abdomen in this position is awkward and difficult for the operator, especially as the invalid usually requires a large amount of it. The process can be well and sufficiently performed only by means of suitable apparatus, which also affords the advantage of being self adaptable to the feelings of the invalid. The good effects attainable by apparatus may be appreciated by trying the following method:

The patient lies face downward, the breast being supported by a cushioned bench or the seat of a wide chair, while the thighs are supported in a similar way, the abdomen being between the two supports, and free. The operator bending over and extending his arms around the patient, reaches the abdomen with his clenched hands, and applies the kneading by alternate applications of motion to either side of the abdomen. If the patient is large, it will be best to apply to one side only at a time, with a rather slow and gentle but strong impinging motion.

22.—KNEADING BY TRUNK ROTATION.

This method combines massage of the contents of the abdomen with semi-massage of the walls containing the digestive organs.

Position.—The patient sits perfectly erect on a broad seat, with the legs wide apart, to increase the base of support; the feet should be kept firm on the floor by being placed under some convenient piece of furniture; feet as far apart as possible to prevent deviation of position; the two hands clasped together resting on the top of the head.

Action.—The operator takes hold of the top of the shoulders and, having command of the trunk, causes the upper portion of the body to gyrate in a wide circle, while the patient remains firmly seated. The motion of the trunk describes an inverted cone, of which the seat is the apex, while the head and shoulders revolve around the base. The trunk may revolve five or six times in one direction, and then execute the same in the opposite direction.

Effect.—Like the direct kneading before described, this process causes the gliding upon each other of all the contents of the abdomen. It promotes absorption and secretion (the fundamental activities of digestion), develops the muscular power of the digestive canal, and removes inertia of the bowels.

The semi-massage of the walls of the abdomen, produced by the alternate tension and relaxation of its muscles, increases their nutrition and power, and therefore their reaction upon the contained digestive mass.

23.—TRUNK TWISTING.

Position.—The same.

Action.—The operator standing behind the patient, and taking hold of both elbows, turns the body to one side upon its axis, the head remaining perpendicular over the trunk and turning with it, while the seat remains fixed and entirely unmoved, thus causing a partial twist to be given to the whole body from the seat upward. The motion resembles that before described as applied to the arms and legs. The body is then turned in the opposite direction, past the starting point and as far as its mechanical adaptations will allow. This motion may be repeated eight or ten times; with moderate rapidity after both operator and patient have become accustomed to its use; or it may be performed very slowly.

Effect.—This is similar to No. 22. When applied slowly the muscles of the trunk are subjected to very direct and active massage, which of course includes such interior underlying muscles, as the subscapular, the intercostals and others which it is impossible to reach by directly applied pressure-motions.

It will be observed that by the process of *twisting* a part of the body, as a limb or trunk, there is motion combined with pressure of the anatomical constituents of the part, no less than when such pressure and motion are imparted by the overlying hand. The twisting method, however, includes more substance in the process, and is therefore less localized.

Twisting motions are converted into *movements* of the duplicated variety, when an effort is made by the patient and resistance is coincidentally made by the operator. This converts the process into a sort of *wrestle*, and confers upon it new therapeutic characters, which it is no part of the present purpose to describe further than to mention that the process described, however applied, produces a lifting effect upon the contents of the abdomen, including the pelvis, and therefore strengthens the natural support of the abdominal and pelvic contents.

CLINIQUE.

SURGERY OF THE RECTUM.—A CLINICAL CONTRIBUTION.

By S. J. DONALDSON, M.D., NEW YORK.

Five years ago I was consulted by Mrs. P.—, aged 35, for the relief of an exaggerated form of vaginismus, associated with an affection of the rectum. The patient was of a nervo-sanguine temperament and naturally (so her husband informed me) of a happy, cheerful disposition, but for the last five years she had been irascible, morose, and, in fact, the opposite of her former self. Her nervous system was apparently entirely unbalanced, the slightest excitement unnerved her, and so emotional was she at the time of her first visit that it was with difficulty she could relate the history of her case, which was substantially as follows: Always a healthy, robust woman until seven years previous, when she suffered from an attack of what was pronounced "slow fever." After this illness she was much troubled with constipation, for the relief of which cathartics were frequently resorted to, and, as is always the result when such measures are employed, the constipation assumed a more aggravated and persistent form. Gradually she lost her appetite, grew anæmic, could not sleep well and became tearful and despondent. To secure an evacuation of the bowels she would take enormous doses of *sulphate of magnesia*, Schenck's and other cathartic pills, and besides was compelled to exert all her strength in expulsive efforts to accomplish defecation. Two years of this abuse naturally developed pelvic disorders and hemorrhoidal affections, for the cure of which she was operated upon, with but slight relief of her suffering, and shortly after this operation vaginismus and vesical irritation appeared. Her next medical adviser was a professed gynecologist, who (as might have been expected) assigned all her troubles to the genitalia, and for months treated her with caustics, vaginal irrigations and tamponadings, all of which caused her infinite suffering and left her in an aggravated condition.

Having developed vesical symptoms, she was next treated by one who made the kidney and bladder a special study, and he, of course, pronounced the case one of chronic cystitis and nephritis. For nearly a year she was under this treatment without receiving the slightest benefit. She again placed herself in the hands of another (a homeopathist), who

adopted the theory of uterine disease, and he in turn maintained that the uterus was anteflexed and that metritis and ovaritis were the cause of all her suffering. By this time the vaginismus was so severe that all local manipulations had to be performed while the patient was under the influence of *ether*. We need not recapitulate the measures employed, all of them absolutely mischievous and cruel. She afterward secured the services of a boastful electrician, who sought for several months to allay her sufferings by the almost daily application of his methods. Finally, becoming utterly discouraged, in despair she determined to discontinue all medical treatment.

During the four years previous to my first visit from her she had suffered constantly from the following symptoms: Obstinate constipation, an ever-present heavy, full, burning aching in the rectum, with a desire for an evacuation, but the promptings were restrained, the effort usually proving ineffectual and resulting only in an increase of distress in the pelvis.

Throughout this region there were twisting, dragging pains, worse when assuming the upright position; sharp, shooting pains darted through the perineum and the urethra up to the umbilicus. Owing to the great irritation of the bladder, urination was frequent and very painful. Vesical tenesmus and retention at times complicated the situation. Vaginismus was so severe that there had been no attempt at sexual intercourse for over three years. There was slight leucorrhœal discharge, the menses were regular, rather scant and not very painful. The most characteristic symptom of all was the disturbance of the rectum early in the morning. For a long time she had been awakened by tormina of the bowels, with an irresistible desire to evacuate, with the result only of the passage of a glairy muco-purulent matter with occasional scybala. This slight movement would be followed by an hour or more of severe griping pain. Each fecal evacuation of the bowels was followed by several hours of the greatest agony; this distress, however, would usually occur about one hour subsequent to the evacuation, and, as a rule, would last about three hours, during which time the patient would lie moaning and writhing upon her bed, bathed in a cold perspiration. When walking she would frequently be seized with a painful spasm of the perineal muscles, causing her to stand perfectly motionless for a few moments until the spasm had subsided.

Now, after noting these pathognomonic symptoms it would be strange if the reader did not anticipate the diagnosis; nevertheless, there have been preceding us four legally qualified practitioners, each possessing the confidence of a large *clientèle*, and yet, as we will see, the cause of the suffering was overlooked by each one. It is a most deplorable fact that this is not an isolated case of malpractice. We are constantly encountering equally remarkable instances which serve as illustrations of the unfortunate tendency of the medical mind to run after theories which are merely the outgrowth of individual experience or personal prejudice. Even if we could ignore the injury inflicted upon the suffering by this one-idealism in the profession, it would still be pitiable to note the manner in which the majority are slaves to some favorite hobby which obscures their perceptive faculties and often overrides the simplest and most evident truths. We feel perfectly secure in advancing this assertion, knowing it will give offence to none, it being a curious circumstance that the most pronounced hobbyists are entirely oblivious of the fact.

To complete our diagnosis we were obliged to administer an anæsthetic, since the mere suggestion of a local examination produced trepidation bordering upon convulsions. A few inhalations of *ether* allayed the hyperæsthesia. We then found the regional anatomy and texture of the uterus perfectly normal. The mucous membrane of the vagina and urethra were but slightly hyperæmic and in other respects normal. Around the

margin of the anus was a fringe of tabs, or hypertrophied tissue, which condition was in itself indicative of what we were to find. The calibre of the rectum was narrowed only a trifle and the walls were somewhat thickened. Upon the introduction of the rectal speculum we discovered that which proved to be the source of all the suffering. Situated on the posterior wall and just within the external sphincter, and extending upward, was an ulcer, oval in form, three-fourths of an inch in length. Its edges were sharply defined and were surmounted with numerous red caruncular bodies, varying in size, the largest projecting about one-fourth of an inch. Their structure was dense and not remarkably vascular. The base of the ulcer was dark purple, mottled and patched with gray. As the patient had been assured that there should be no operation performed without her consent, all further proceedings were postponed until a few days later.

Then, the bowels having been thoroughly acted upon by three ounces of *castor oil* the night previous, we proceeded to incise the ulcer, and now we approach the objective point of this paper.

Owing to the repugnance the patient had for *ether*, together with an apparent unfavorable effect it exerted upon the respiratory organs, I determined to give her *nitrous oxide gas*, since the operation would be of short duration. The *gas* was administered to its utmost limit, until the face was purple and respiration suspended, and yet sensation in and contractile power of the perineal muscles were by no means suspended. We then administered *chloroform* and pushed it until the breathing became stertorous in the extreme; but whenever an attempt was made to insert the speculum a painful contraction of the muscles would follow, rendering the body so rigid as to preclude all possibility of proceeding with the operation. Although the eyes and every other part of the body were wholly insensible, still any manipulation around the rectum or perineum would immediately excite muscular contraction so violent that it was impossible for two strong assistants to control the movements of the patient. We, therefore, were compelled to desist, and the next day persuaded her to return to the *ether*. In a very few minutes after beginning its inhalation, even before she was quite unconscious, all sensitiveness of the rectum and adjacent parts was allayed, so that while she was yet talking incoherently the speculum was introduced and the ulcer cleansed with absorbent cotton.

After the elevations before mentioned had been snipped off from around the ulcer it was touched thoroughly with *acid nitrate of mercury* and after a moment swabbed with a saturated solution of *bicarbonate of sodium*. An incision was next made directly through its centre, beginning one-half inch above its upper extremity and ending about an inch outside the anus. The incision was three-eighths of an inch deep and was directed to the left side of the mesial line, so as to insure the division of the sphincter fibres. A tampon of cotton covered with *vaseline* was left in the rectum and the patient put to bed. She awoke pronouncing herself almost free from pain. Slept well that night without the aid of any narcotic. Three days subsequent the bowels were evacuated without any extraneous aid, when the tampon was removed for the first time. No discomfort was experienced at this first evacuation save a smarting sensation. She has never experienced any distress in the rectum since the incision was healed. The bowels moved daily, the vaginismus gradually subsided, and in three months the patient had fully regained her former robust and perfect health. Since that experience I have had several similar illustrations of the insufficiency of *chloroform* in suspending sensation and muscular contractility in operations upon the rectum and perineum, while on the other hand, *ether* has always secured complete relaxation and anesthesia of the parts, and this result is frequently accomplished before complete anesthesia of the eye is produced.

This subject is one I have never heard broached by any surgeon except one. Two years ago, while in conversation with Dr. Allingham—many years surgeon of St. Mark's Hospital for diseases of the rectum, London, and than whom there is no better authority—I asked him his reasons for preferring *ether*. His reply was that *ether* was the only anæsthetic that invariably produced complete relaxation and insensibility of the tissues forming the pelvic floor.

This being the case, it is worthy the highest consideration of every physician, and it is especially interesting to the obstetrician.

OBSTETRICAL MEMORANDA.

By SHELDON LEAVITT, M.D., CHICAGO, ILL.

I.—DELIVERY OF THE AFTER-COMING HEAD.

Dr. W. H. Seymour (*Am. Jour. Obs.*, May, 1883), with a clinical case as a text for his observations, gives an article entitled "The Delivery of the After-coming Head by the Occiput," in which he recommends the practice of an unusual mode of head extraction. When the body has passed the vulva, and the after-coming head lies at the outlet, with the occiput toward the sacrum, he assures us that by making the symphysis pubis the centre of revolution, the body may be carried forward over the maternal abdomen, and the head delivered with greater ease than by any other method. This, however, he wisely limits to cases in which the chin is extended and rests on the pubic arch.

In another class of cases, wherein, though the occiput is forward, the chin has been permitted to leave the sternum early, and extension has become excessive, he has found that in final delivery the head is more easily extracted when the body is carried well backward over the perineum, than when, as in common practice, it is drawn well forward.

Both these suggestions commend themselves to our reflective judgment and may prove to be of decided value.

II.—ANTISEPTIC MIDWIFERY.

The antiseptic treatment of miscarriage, labor and puerperality is attracting considerable attention, and it is to be hoped that the discussion of its merits may result in solid benefit to puerperal women. A recent paper on this subject by Dr. W. Gill Wylie, read before the Medical Society of the County of New York (*Medical Record*, vol. xxiii., p. 692), is peculiarly practical and sensible. Dr. Wylie suggests that we should consider the uterus after abortion (and labor) precisely as surgeons do a punctured wound, and as likely to be poisoned and beset with dangers when neglected or badly treated. His management is Listerian in character, but in the practice of it there must be less danger of the development of toxical symptoms of the drug employed than in the instance of open wounds. He has pursued the practice recommended in private since 1872, and, almost without exception, the temperature of his puerperal cases has remained below 100°. Dr. Wylie gives in substance the following directions:

First.—Examine locally every case some weeks before labor; have a trained nurse several days before confinement is expected; if lochia are present, warm vaginal douches of *carbolic* solution, 1 to 40, should be given twice a day, and in all cases, as soon as the first symptoms of labor begin, the vagina and vulva are to be washed with the same solution.

Second.—Remove all unnecessary furniture from the room and disinfect that which remains; see that there is a good supply of napkins and bed linen at hand, carbolicizing them before use; change the linen daily; have two sets of blankets and use them on alternate days; wash the hands and all instruments in a five per cent. solution of the acid.

Third.—On the advent of labor begin the production of carbolic spray. In the puerperal state, the napkins, after

being carbolized, should be changed every hour or two, according to the quantity and character of the lochia.

Fourth.—Immediately after labor wash the external parts thoroughly with a mild solution of *carbolic acid*, and give vaginal douches from two to four times daily for several days.

Fifth.—The test for the thoroughness of this method is that at no time should one be able to recognize the odor usually noticed in the lying-in chamber.

While few, I trust, will be inclined to adopt so prodigal a use of *carbolic acid*, I sincerely believe that it can be employed to a certain extent in the practice of antiseptic precautions with decided benefit. There are many who do their obstetrical work in a most slovenly way; and the most careful are not as scrupulously exact as they ought to be. "Cleanliness is next to godliness;" and this is the commendable feature in the various plans of antiseptic treatment in both surgical and obstetrical practice.

III.—HOW TO SECURE THE BEST POSSIBLE PHYSICAL CONDITION AFTER PARTURITION.

Dr. R. Tauszky presented a paper to the New York Academy of Medicine, April 26, 1883, entitled "How to Secure the Best Possible Physical Condition after Parturition" (*Am. Jour. Obs.*, vol. xvi., p. 735), a most timely subject, and one which should awaken serious reflection in the mind of every conscientious physician. It does not follow that we have reason to take off our hats to ourselves and swell with vanity, because our puerperal patients uniformly escape with their lives; for many of our so-called successful cases are numbered in the list of those wretched women who can trace to labors in which they were attended by us the alpha of that alphabet of suffering with which they have become so familiar.

It may be that our author's inquiry at the very beginning of his paper is too comprehensive; "Why is it that almost every woman as soon as she becomes a mother begins to suffer from some form of pelvic disease?" I believe that it is; but we must confess to finding evidence of pelvic ailments in so great a percentage of cases that this "almost every" does not startle us. The plan of treatment recommended involves the use of thorough antiseptic precautions. He also advises the administration of *enemata* early in labor; thorough evacuation of the bladder, naturally or artificially; careful manual dilatation of the os uteri; the rupture of tough membranes; the moderate use of *chloroform*, especially in primipare; and a resort to the forceps when the head is delayed in its passage. He emphasizes the injunction not to tie the cord till pulsation has ceased, and indorses Crede's mode of placental expression. Search should be made for lacerations, and if found he advises stitching. He indorses the use of the abdominal binder, recommends that the child be applied early to the breast, for the purpose of uterine stimulation, and advocates the administration of a dose of *ergot* after removal of the placenta. He limits intra-uterine antiseptic injections to cases wherein the lochia are offensive.

He takes occasion also to denounce the early assumption of the upright position so strongly advocated by some.

Dr. Tauszky exhibited some of Leiter's devices for reducing intra-pelvic temperature, consisting of metallic cylinders, inclosing coils through which cold water can be made to flow by means of suitable connections with rubber tubes.

IV.—RECOVERIES FROM REMARKABLE PELVIC TRAUMATISM.

"A singular case is reported by Mr. J. Hopkins Walters, where a midwife, in the attempt to remove a retained placenta after labor at term, had torn out the entire uterus, and where, strangely enough, the patient made an excellent recovery.

"A similar case, with like results, was reported by E. Schwartz in the *Archiv. für Gynäkologie*, xv., 1., where he also states that he has found recorded only

four similar cases, in three of which the patients recovered." (*Am. Jour. Obs.*) Such tolerance of traumatism seems almost incredible.

V.—THE MANAGEMENT OF OCCIPITO-POSTERIOR POSITIONS.

In a paper presented by Dr. Elias C. Price to the Medical Investigation Club of Baltimore, entitled "The Recent Frequency of the Occipito-sacro-iliac Positions. Manual Rectifications," are some points worthy of notice.

"I had practiced medicine," says Dr. Price, "with a fair share of obstetrical cases, for twenty-four years and a half, before I knowingly had a case of either the third or fourth position." This experience is surprising, and corresponds with that of an excellent physician of my acquaintance, who in a practice of a dozen years, with many obstetrical cases, has had but a single pelvic presentation. It has been my fortune to encounter many third and fourth positions.

The Doctor relates the details of ten cases of occipito-posterior positions, and from his experience deduces certain conclusions concerning treatment. He favors introduction of the hand and manual rotation, preceded, however, by rotation of the body.

Such treatment, while indorsed by Parry and others, we regard as harsh and unnecessary. If the pelvis is roomy or the head small, it matters little whether rotation takes place or not. If opposite conditions prevail, conjoint manipulation, with four fingers in the vagina, will generally succeed, but failing, the forceps should be applied and the head gently rotated (regard being constantly had to the pelvic curve of the instrument). Such rotation should be attempted, however—if the head has engaged the brim—only when the presenting part has reached the pelvic floor. This mode of delivery was practiced by the Doctor in one of his reported cases.

He gives the following rules for treatment:

"1st. Never attempt any manual interference until you have confirmed your previous diagnosis of the position of the head, by introducing your hand and ascertaining the position of the ear."

(Such an examination by an experienced *accoucheur* is needless, except in rare cases; and, inasmuch as it is not altogether harmless, it better be avoided. The half-hand, *i. e.*, four fingers, may be employed when two fingers will not answer, and when the valuable adjuvants palpation, and auscultation, do not enable us to make an unqualified diagnosis.)

"2d. Never attempt the above examination until the patient is completely anesthetized."

(We ought to be quite certain of the position before we subject the woman to an anæsthetic influence for the purpose of rectifying it. If our design is to use the forceps, whatever the position, why, then, we may defer thorough exploration until narcosis has been established.)

"3d. Always, if possible, rotate the body of the child before attempting to rotate the head."

(This, of course, is wise counsel, provided extensive rotation is designed. For our own part we regard persistent attempts at rotation to the extent of more than 45° or at the most 90°, as unnecessary, and somewhat hazardous.)

"4th. As the forehead generally points toward either one or the other acetabulum, always rotate in the direction the face already points."

(That is to say, if the face lies toward the left acetabulum rotate it backward along the left side of the pelvis, and if to the right acetabulum, then rotate it backward along the right side of the pelvis.)

"5th. Push the head up if you find it difficult to make the rotation."

"6th. If you think there is a malposition, try to ascertain the fact, and if necessary, rectify it, as soon as the os is sufficiently dilated to admit the hand."

(The Doctor here evidently means to designate an occipito-posterior position by the term "malposition." I therefore take decided exceptions to both the designation and the treatment. The occipito-posterior positions, under suitable management, nearly always become occipito-anterior before the close of labor, and that, too, as the result of simple manœuvres. Maintain firm flexion of the head until it reaches the pelvic floor and begins to bulge the perineum. Then slip two fingers behind the occiput and crowd it forward during a pain, and repeat the attempt at every recurrent uterine contraction. This will generally be sufficient to accomplish the purpose; but should the efforts prove unavailing the forceps may be applied and the movement carefully enforced.)

This principle of treatment must be observed, however, viz.: *Never attempt rotation of the head after once it becomes fastened at the brim, until, during uterine contraction, the presenting vertex begins to bulge the perineum.*

VI.—POST-MORTEM SPONTANEOUS EXTRUSION OF FETUS.

In the July 7 number of the *Medical Record*, under the caption "A Rare Case Indeed," is reported a case of spontaneous delivery after death and burial of the mother. A few instances only of the kind have been recorded, and such an occurrence is truly a curious phenomenon. We do not believe, however, as the narrator evidently does, that delivery was probably accomplished by uterine contraction. It seems altogether more likely that, following the disappearance of the *rigor mortis*, the gases generated in the processes of decomposition acted as an efficient *vis à tergo*, and effected the expulsion.

CLINICAL OBSERVATIONS.

CONSTIPATION.

Belladonna tincture, in one-fifth drop doses, especially in children with large heads and subject to convulsive phenomena. Also with cerebral congestions and pains. In chronic hæmorrhoidal constipation and that of hypochondriacs and nervous women.

Nux comica, $\frac{1}{100}$ gr. doses, in cases arising from hæmorrhoidal and dyspeptic troubles, aggravated or brought on by sedentary habits. The absence of all desire for defecation is a contra-indication. Where the action of the intestines is increased, but at the same time it is irregular and spasmodic, so that there is the frequent desire, but inefficient efforts at stool.

Opium, one-fifth drop doses, in constipation of a paralytic nature, or when due to lead poisoning. In nursing infants, aged persons and those of a torpid or plethoric habit. In all these there is a complete absence of expulsive efforts, showing a marked inactivity of the rectum. When the constipation follows a debilitating diarrhœa, or where there is paralysis of the intestines in consequence of a protracted attack of diarrhœa, in subjects of sedentary life or in robust men. In the cases calling for *opium* there is oftentimes a want of sensibility in the abdominal condition and hardly any inconvenience is felt from the accumulation of fæces. In young children the dose should not exceed $\frac{1}{150}$ of a drop.

Phosphorus, $\frac{1}{100}$ gr. doses, in constipation due to intestinal inertia and associated with atony of the sexual organs. Also when due to a gastric neurosis and when occurring in fevers and chronic diseases of the circulatory and intestinal tract, with prostration of the vital forces.

Quinia sulph., $\frac{1}{10}$ gr. doses, where there are large accumulations of fæces with vascular erethism, flushed face, fullness in the head and palpitation of the heart. Inertia or inactivity of the muscular fibres of the intestines, where the latter becomes distended and necessitate painful efforts to expel the fecal mass.

Calcium sulph. Obstinate constipation from congestion of the rectum. The stools are generally insufficient and are evacuated with difficulty, on account of the inactivity of the rectum; $\frac{1}{10}$ to $\frac{1}{100}$ of a grain several times a day.

Podophyllum pelt., one-fifth drop doses of the tincture in constipation with irritation and prolapsus recti, alternation of diarrhœa and constipation, especially in infants artificially nourished; in children with aggravated conditions of falling of the rectum.

Sulphur, in chronic cases of constipation, especially when accompanied with hæmorrhoids. When the constipation depends upon the obstruction or swelling of some organ, especially the liver, together with engorgement of the portal circulation; in the constipation of pregnant women and the new born. Dose $\frac{1}{10}$ to $\frac{1}{100}$ of a grain.—(T. M. S.)

MERCURIO BICHLORIDE AS AN ANTISEPTIC.

Corrosive sublimate, or, as now called, *mercuric bichloride*, has long been known to possess superior antiputrefactive properties, but its toxic effects have prevented its general use among surgeons. It has been found that in solutions varying in strength from 1 to 1,000 to 1 to 20,000, bacteria were killed, or their further development checked. The bacillus of gangrene of the spleen, which resists the action of all antiseptic agents, was destroyed in a solution of the strength of 1 to 1,000; in a solution of 1 to 5,000, its growth was markedly retarded. Kümmell was the first to attempt practical tests of the *bichloride* as an antiseptic wound dressing, using a 1 to 5,000 solution. He then increased the irrigating fluid to 1 to 1,000, and even to a one per cent. solution without dangerous symptoms supervening. On account of the action of the *bichloride* upon instruments, and the danger of the atomization of even a dilute solution it cannot be used as a spray.

In two patients treated with the one per cent. solution the constitutional effects of the drug appeared; in one there was salivation and in the other a diarrhœa, probably of tuberculous origin. Recovery took place in each case within a few days without removal of the dressing. Both patients had suffered previously from *iodoform* intoxication, suggesting a peculiar susceptibility to the action of antiseptics.

Kümmell deprecates the use of sponges except when required in the operation itself; the cheapness of the *bichloride* justifying its free use in cleansing the parts. The floor and walls of his operating room are scoured and scrubbed with the solution and no accident has yet occurred to either attendants or patients. In persons with sensitive skin the *bichloride* may give rise to an eczematous condition of the parts surrounding the wound. In wounds in which putrefactive changes have already occurred, the *mercuric bichloride* solution quickly banishes the odor and arrests the septic processes.

The dressings devised by Kümmell consist of sublimated gauze and cotton, silk, catgut, oil and inorganic materials. These latter comprise powdered glass, sand, coal ashes, asbestos, lint made from spun glass, and, for the purpose of drainage, capillary threads of spun glass.

In order to have a powder dressing he takes common white sand, sifts it well, and then heats it in a covered vessel over a coal fire; upon cooling it is mixed with an ethereal solution of the *bichloride* and kept for use in glass stoppered bottles. To make the preparation, 10 grms. of the *bichloride* is dissolved in 100 grm. of ether; this quantity is amply sufficient to perfectly impregnate 10 kilo. of previously heated sand. This sand dressing can be used in many ways, as, for instance, filling in previously disinfected and bloodless wound cavities where primary union cannot be hoped for. Here the dressing should not be covered with an impermeable

covering, for the reason that it is desirable not to prevent the drying of the secretions in the sand, healing taking place as under the scab. The under dressing is not to be disturbed for several weeks, or until healing has taken place. The outer portions are removed from time to time as the secretions find their way through and dry thereon, and new pieces are supplied in their stead. When irrigation of the parts is required the solution of the *bichloride* is used, and new sand applied where the old has been washed away. Wounds thus treated are found to be aseptic and odorless. Large cavities can be kept filled with the sand for a week without the appearance of a single drop of pus. The rapidly forming granulations push the sand outward from the bottom of the cavity, and when removed, disclose the wound firmly cicatrized as under the scab. A great advantage of this dressing will be found in its applicability to compound fractures, and other injuries requiring the use of a plaster of Paris dressing. Here, on account of the scantiness of the discharge under this dressing, the fixed apparatus may be left *in situ* for several weeks without being disturbed. By means of an insufflator the fine sublimated sand may be instilled into sinuses, various fissures and deep recesses.

In four cases of Pirogoff's amputation, where this antiseptic dressing was used, healing took place without reaction of any kind, bony consolidation and absolutely dry linear cicatrices being present in from ten to fourteen days. The record is the same in degree in the treatment of ulcers, suppurating joint cavities, old fistulous openings and sinuses, which had previously resisted *iodoform* treatment.

In order not to interfere with the healing of wounds by first intention, cushions of the sand have been used. These bags were made of the coarsest textural cotton cloth, well disinfected, and rendered hygroscopic. The objections were that bags of sand were heavy and cumbersome, and might produce abrasions and blisters. Fine ashes, such as are found behind the fire boxes of steam boilers, were substituted for the sand, and found to be an excellent substitute, readily absorbing the *bichloride* solution.

Another feature of Kümmell's antiseptic method consists in the employment of glass wool or wadding. This material is derived from annealed glass rods, which are capable, when heated, of being drawn into long delicate fibres, having a diameter of from 0.01 mm. to 0.006 mm. These can be compressed into masses for convenient use. These masses can be rendered antiseptic by immersing them in the *bichloride* solution. A dry dressing thus prepared will absorb secretions very rapidly.—(*Annals of Anat. and Surgery*.)

Dr. Robert F. Weir (*N. Y. Med. Journ.*, Nov. 1, 1883) highly praises *corrosive sublimate* dressings for wounds. If acting poisonously, its effects are quickly detected, and he found that one gramme of *corrosive sublimate* to 2,525 grammes of water was capable of killing bacteria, showing it to be more powerful than *carbolic acid* or *iodoform*.

MYXEDEMA.

Thomas Oliver, M. D., M. R. C. P. (*British Medical Journal*), says by the term myxedema is meant a disease which affects middle-aged women. It is slowly progressive in character; the tissues become invaded by a peculiar jelly-like mucin-yielding material. It is unaccompanied by albumen in the urine, or by any of the other signs of primary affection of the kidneys.

It is difficult to assign it to a cause. The middle age of female life has furnished the greatest number of cases, but why we cannot tell. Syphilis and intemperance can, in almost every case, be excluded, and to pregnancy it has no special relation. Dr. Ord is inclined to regard anxiety, domestic worry, etc., as having something to do with its development, and both of my cases lend weight to this supposition. A nervous origin of the complaint

is contended for by M. Verneuil, who has seen it follow injuries, the wound in these cases having some supposed influence on the central nervous system, capable of producing the special phenomena of myxedema.

Wherever met with, the connective tissue of the body was the seat of overgrowth and degeneration. Its fibrillar element was markedly increased and well marked, its nuclei enormously multiplied, while the intercellular material, or what Dr. Ord calls the interstitial cement, was enormously augmented. Normal tissue yields very little mucin, but the skin in myxedema yields, we are told, many hundred times the quantity met with in health.

A period comes late in the course of the disease, when the morbid process extends to the kidney; the cortical substance, in which the Malpighian bodies are imbedded, becomes invaded by a nuclear proliferation; an invasion which is announced by the presence of albumen in the urine.

Besides the swollen condition of the face and hands, the most prominent symptoms are slowness of thought and action. Muscular movements are slowly performed and there is incapacity for prolonged muscular effort. Tardiness enters into every action. Answers to questions are not returned immediately. It is some time before the nature of the question is appreciated; some time before thought is expressed in word. Speech is slow, measured and distinct. Summed up in a few words, there is, as the result of the subcutaneous changes which act the part of a padding to the termination of the sensory nerves, imperfect reception of external stimuli, and in this way impaired reaction on the part of the brain. A complete pathology of myxedema cannot be built upon the microscopic appearances and chemical changes found in two *post mortem* examinations; but we can, if clinical records show a persistent similarity in all the cases now met with, take them as our type. Dr. Ord has shown that the lesion of myxedema is a change in the amount of the white cement of the connective tissue—there being marked excess of the normal mucin yielding interfibrillar cement. If, then, the nerve-endings in the skin be enveloped in a soft, jelly-like material, and be so padded that external stimuli can scarcely reach them there must be not only imperfect reception, but probably, also, slow transmission of sensory impulses to the brain; and, as the central nervous ganglia are the seat of similar changes, the result can only be deficient mental power—seen in the slow process of thought, slow response on the part of the muscles to the will, and imperfect co-ordination on the part of muscle and nerve.

Once the disease is established, it seems to pursue a downward course. The tendency is for the myxosis to encroach upon blood vessels and glandular structures, and the termination is Bright's disease; albumen suddenly appearing in the urine, other symptoms of renal disease appearing, and the patient dying comatose.

THERAPEUTICS OF CHOLERA.

Dr. E. M. Hale recently read a paper on the therapeutics of cholera in which he says:

"Fifty years ago Hahnemann wrote: 'The use of copper, combined with a mild and regular regimen and cleanliness, is the most certain and efficacious preventive.' He adds: 'It has been proved in Hungary that a plate of copper worn next the skin will preserve one from the infection, as I have been assured by several authentic reports from that country.'

"In support of these statements I will quote from the writings of an eminent allopathic physician of Paris, Dr. Burg, whose fame as an investigator of the medicinal power of metals is world wide. Thirty years ago he ascertained, by numerous experiments made in the hospitals under the supervision of the head physicians, that the application of copper to the limbs, in the form

of rings, is a certain means of causing the cramps in cholera patients to cease immediately, and often all the serious symptoms which accompany them vanish at the same time. This important discovery obtained for him from the government a medal of distinction and a pension.

"He presents the following deductions: (1) The protection exercised by this metal appears to have been of two distinct natures, preventive and curative. (2) The preventive effect was no doubt produced directly by contact, and in proportion to the amount of protecting metal and indirectly by simple vicinity, for not only did copper preserve those who worked with the metal, but those who lived in the vicinity of the great manufactories, or where large quantities were stored. This he attributes to the emanations from the copper, either in the form of highly attenuated particles or an effluvia of a specific character. Of all metals copper may be said to be the most volatile. Rub a piece between the two hands, or wear it in contact with the moist skin of the body, and you will soon smell or taste it, showing that copper is given off as a volatile substance and is absorbed into the blood. (3) Some of Dr. Burq's instances of immunity were very remarkable. In many cases the cholera devastated a city, town, or section of country, but did not touch the neighborhood of the factories engaged in working copper, brass, or bronze, or the copper mines or their immediate vicinity. It would seem that the invisible effluvia or influence of this metal acted as an actual cordon around the inhabitants of the districts where copper was worked. (4) The practical deductions from these facts are thus stated by Dr. Burq, namely: During cholera epidemics the metal copper, preferably its alloys brass and bronze, should be worn next the skin as extensively as possible; also that large sheets of these metals should be hung on the walls of the living rooms of residences. He also advises that the metal should be snuffed up the nostrils in the form of very fine powder.

"Many years before this was written by Burq, Hahnemann advised the use of copper in the actual treatment of the cholera seizure. He says copper is a remedy for cholera, because when taken internally in poisonous doses it causes a series of symptoms and pathological conditions resembling attacks of cholera.

"A recent Paris letter, published in the *Medical Record*, commenting on the probable spread of cholera, shows that Dr. Burq has not abandoned his theory. In a recent discussion before the Academy of Medicine, he reiterates his belief that copper is both prophylactic and curative in cholera. It seems that thirty years of investigation has not lessened his confidence in the influence of this metal. But thirty years has greatly changed the methods of medical thought and investigation; and he no longer makes the assertion that copper stands in the same relation to cholera that quinine does to intermittent fever. In conformity with prevailing beliefs he now asserts that copper destroys the microbes, or disease germs, which cause cholera, whether within or without the body. He even extends this influence to such diseases as typhoid fever. At a meeting of the Société de Biologie, of Paris, Dr. Burq presented an interesting communication upon the immunity enjoyed by workers in copper during epidemics of cholera and typhoid fever. He stated that of 40,000 such workmen, two only died during each of the epidemics of typhoid fever in 1876 and 1883. Furthermore, the statistics of a society of 300 members, all copper workers, showed that during the entire period of the existence of the organization (sixty-four years) there had been but three deaths from epidemic diseases among its members."

The following appears in the *Medical Record* for Aug. 18: "Workers in copper and brass make more or less use of sulphuric acid, and they come into contact with acid salts in much of their work. Beneficial results have been obtained from the employment of sulphate of iron and dilute sulphuric acid as prophylactics

during an epidemic of cholera. Reasoning from these facts, Dr. F. A. Castle asks whether the immunity of copper workers from cholera may not be accounted for more easily without presuming that the metal itself affords protection."

NATRUM MUR. IN WHOOPING COUGH.—When watering from the eyes, when "the tears stream down his face whenever he coughs," is a prominent symptom, *natrum. mur.* will be found to cure.—Dr. J. C. Burnett, *Homœopathic World*.

ON JEQUIRITY AS A CAUSE OF PURULENT OPHTHALMIA.—From the periscope of the *Dublin Journal of Medical Science*, we find that Dr. De Wecker, of Paris, advocates the use of an infusion of *jequirity* to induce purulent conjunctivitis as a means of treating severe granular ophthalmia. *Jequirity* (*abrus precatorius*) belongs to the family leguminosæ, and is a native of tropical Asia and Africa, whence it was imported into South America. It is the seeds of the plant which contain the medicinal properties. Dr. De Wecker has found that it produces an acute conjunctivitis, which he values as being as effectual for removing granulations and pannus as inoculation, without its attending danger. The attack produced by *jequirity* usually lasts only about fifteen days altogether. It is also, by its use, possible to proportion the dose to the requirements of the case, whereas in inoculation this is impossible. It is prepared and used as follows:

Triturate carefully and finely 32 grains of the *jequirity*, and macerate the product in 500 grammes of cold water for twenty-four hours. Then add, the following day, 500 grammes of hot water; filter the liquid immediately on cooling. The fluid so obtained is to be applied to the everted conjunctiva of the lids on pads saturated with it, which are to be kept in position for a few minutes, shorter or longer in proportion to the results required. In a few hours, great irritation and oedema of conjunctiva, followed by a copious secretion; there is some fever, sleeplessness and headache for three days. After the third day suppuration begins, and lasts for five days, after which the pus diminishes in quantity, and about the fifteenth day the patient is convalescent. Further particulars in *Annales d'Oculistique*, July and August, 1882.—*Hom. World*.

TOXIC EFFECTS PRODUCED BY ATROPIA IN THE EAR.—Knapp had in treatment a lady twenty-five years old in whose ear he dropped a few drops of a one-half per cent. solution of *atropia*. The otalgia ceased, but unmistakable toxic symptoms soon appeared; four hours after the application of the *atropia* the hands and feet began to swell, the face became scarlet, the eyes puffed, the tongue thick, and the throat extremely dry, the under lip hung down, the heart palpitated, and the patient complained of great heat. These symptoms lasted for several hours and then disappeared entirely. A weaker solution afterward applied to the ear had no disagreeable effect. The resorption must have taken place through the glands, as there was not the slightest excoriation in the ear.—*Zeitschr. f. Ohrenheilk. XI.*, p. 292.

MANGANESE IN AMENORRHEA.—Drs. Sydney, Ringer and Murrell write to the following effect: "We are desirous of calling attention to the value of a very simple remedy in a very common complaint. For some time past we have used *permanganate of potash* with much success in the treatment of certain forms of amenorrhœa, and are satisfied of its value. Our most striking results have been obtained in young women between the ages of eighteen and twenty-five, who, from some accidental or trivial cause, such as catching cold or getting wet, have missed once or twice after having been regular. The administration of one or two grains of

permanganate of potash in pill three or four times a day for a few days before the time of the expected period will bring on the flow almost to a certainty. Patients frequently complained after taking the pills of a heavy persistent pain over the upper part of the sternum, as if something had stuck there and would not go down. One patient said that the pain was of a burning character, and another said it was like heart-burn. A girl of sixteen, to whom two two-grain pills of *permanganate of potash* were given four times a day, said the pain, like a lump at the chest, came on immediately after each dose, and was so intense that she had to go to bed for two hours. That the effects we have described are due to the *manganese*, and not to the *potash* in the salt, is shown by the fact that *manganate of soda* and *binoxide of manganese* are equally efficacious in the treatment of amenorrhœa. The treatment succeeds equally well in the plethoric and in the anæmic.—*Lancet*.

DIFFERENCES OF SIMILAR REMEDIES IN TYPHOID CONDITIONS.—*Arsenic* patient calls for small drinks of water, and often patient is worse after midnight. *Bryonia* patient wants large drinks of water; he is worse at nine P.M., or before midnight. The *arsenic* patient is weak, feeble and trembling, and all the time tossing his hands and limbs for relief, while the body lies still. *Bryonia* patient is worse from all motion. *Rhus* patient moves the whole body, and is relieved, thus differing from both *arsenic* and *bryonia*. The movements of *belladonna* are quick, while *bryonia* is slow, and *arsenic* weak and trembling. *Belladonna* patient has hot head, red face, sparkling eyes, cannot sleep; while *arsenic* has pale and sallow face, anxious expression, dry, leathery skin. *Belladonna* wants a dark room, cannot bear the light; furious delirium, will strike and bite at those who are near. *Stramon* must have the light burning, and wants company; he cannot be alone. *Hyoscyamus* does not know his own family, wants to be naked, wants to run away. (*Bryonia* wants to go home). *Baptisia* has dark, red face, besotted expression, thinks he is scattered about and wants to get the pieces together.—*Dr. Owens in Med. Incest*.

"A NEW OPERATION FOR CATARACT."—Mr. C. L. Jeaffreson, commenting in the *Lancet* of January 27, on an article in the same journal by Professor Galewski, of Paris, entitled "A New Method of Cataract Extraction without Excision of the Iris," points out that the proposed operation resembles so much one that has previously been performed as hardly to merit the title of a new operation. In describing the steps of his procedure, Prof. Galewski says: "After having seized the conjunctiva with fixation forceps, I puncture the transparent cornea just at its junction with the sclerotic with a very narrow-bladed Graefe's knife, and at a point 3mm. above the horizontal diameter, then inclining the edge slightly forward I cut the corneal flap in such a manner that its summit shall be 2mm. distant from the sclerotic margin."

"Now, I would suggest," remarks Mr. Jeaffreson, "that in nine cases out of ten no corneal flap could be made according to Prof. Galewski's directions. The average diameter of the cornea rarely exceeds 10mm.; the space, therefore, above the horizontal diameter would rarely exceed 5mm., and if the knife were entered 3mm. above the horizontal diameter, and made to emerge 2mm. below the sclero-corneal margin, in nine cases out of ten it would emerge at the same spot where it entered, and the result would be a horizontal incision. In the tenth case the corneal flap, if such it could be called, would rarely exceed half a millimetre in height. Now, if this is what Dr. Galewski intends, the operation can scarcely be called a new one, bearing as it does such a close resemblance to a procedure to which M. Perrin lays claim. A comparison

of these two methods shows that as regards the incisions of the cornea they are almost identical. It is true that M. Perrin usually performed an iridectomy, which Galewski avoids; still this departure hardly justifies the assumption of the title of a new operation. A very slight modification in the situation of the incision would again correspond to what I have always understood to be Lebrun's or the Belgian operation, an operation I have performed for the last eight or nine years in almost all cases of senile cataract, with which I have every reason to feel satisfied, and which I believe is very commonly performed in England."

BELLADONNA IN CHRONIC CONSTIPATION.—Mr. Hans M. Wilder, the well-known pharmaceutical writer, says, in the *Druggists' Circular*: "Having for many years tried almost every cathartic, singly and in combination, with only temporary benefit at best, I at last stumbled upon the following: Take one drop—no more—of tincture of *belladonna*, U. S. P., morning, noon and night, in half a tumbler of water, and within one week the bowels will commence to move regularly. Not being a physician, I do not pretend to know in what way *belladonna* does act, but the result seems to be thorough."

TO ABORT A STYE.—Dr. Louis Fitzpatrick, who has recently returned from Egypt, where all kinds of eye-affections are extremely common, writes to the *Lancet* that he has never seen a single instance in which the stye continued to develop after the following treatment had been resorted to: The lids should be held apart by the thumb and index finger of the left hand or a lid-retractor, if such be at hand, while the tincture of *iodine* is painted over the inflamed papilla with a fine camel's hair pencil. The lids should not be allowed to come in contact until the part touched is dry. A few such applications in the twenty-four hours are sufficient.

MILK AND OIL IN DISEASE.—Dr. W. W. Towusend, a well-known physician in Philadelphia, says that he has used milk in every case of dysentery, typhoid, scarlet or relapsing fever, small-pox, measles, etc., which has come under his care for nearly forty years, in every stage of the diseases. In dysentery he prefers fresh buttermilk. He adds that in small-pox and scarlet fever he anoints the patient from head to feet with olive oil by means of a badger brush, and repeating as often as it disappears, thereby allaying the heat, keeping open the pores of the skin, producing quietude, preventing congestion of the capillary circulation, and obviating the necessity of anodynes.

ASAFOETIDA IN THE TREATMENT OF ABORTION.—In the *Journal de Medecine de Paris*, of December 16, 1882, are collected the results obtained by several observers in the prevention of abortion and premature labor by *asafoetida*. In nearly 90 per cent. of the cases so treated, the patients who had aborted from two to five times in former pregnancies went on to full term. Drs. Giordano and Carxani announce equally favorable results, though the number of their cases was smaller. The latter prescribes the drug in pill form in doses of one and a half grain twice a day, gradually increased to twelve grains per diem. Dr. Gourgues recommends the administration of *asafoetida* in emulsion with the yolk of an egg, by the rectum.

RESORCIN AS A REMEDY FOR CYSTITIS.—Dr. J. Andeer, *Centralbl. f. Die. Med. Wissen*, reports extensive use of *resorcin* in acute and chronic cystitis, and claims for it almost specific curative power. He reports one hundred and fifty-six cases where, either by him or to his personal knowledge, it was injected into the human bladder with the best results in vesical catarrh. Acute cases have been entirely cured by the injection of a five per cent. solution.

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"A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the ONLY ACKNOWLEDGED RIGHT of an individual to the exercise and honors of his profession."—Code of Medical Ethics, Amer. Med. Ass., Art. IV., Sec. 1.

Our practice is *not* "based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

PROFESSIONAL RETALIATION.

The Jefferson County (Ala.) Medical Society enforces its code of ethics in the following resolution:

"That every member of the Jefferson County Medical Society shall hereafter refuse all professional fellowship or recognition to all physicians who shall directly or indirectly extend any sort of professional service or advice to patients under the care of homœopathic or irregular practitioners. No such service or advice being allowable until the homœopathic or irregular practitioners has been formally and permanently discharged from all further attendance upon the case either as physician, nurse or in any other capacity; and all physicians under the ban of this society are considered and shall be treated in every way as irregular practitioners."

The Homœopathic Society thus retaliates:

"That every member of the Jefferson County Homœopathic Medical Society shall hereafter refuse all professional fellowship or recognition to all physicians who shall directly or indirectly extend any sort of professional service or advice to patients under the care of regular practitioners, no such service or advice being allowable until the allopathic or regular practitioner has been formally and permanently discharged from all further attendance upon the case, either as physician, nurse or in any other capacity; and all physicians under the ban of this society shall be treated and considered as regular practitioners, and upon frequent repetition of said offense shall be prosecuted to the fullest extent of the law."

It has been for the purpose of preventing such bickerings as these that the TIMES has exerted considerable

effort, and which, we are sorry to say, has been misinterpreted in some quarters.

We are quite aware that there exists a widely diverging opinion respecting these ethical points, but an editorial in the *Medical Era* for August shows that the subject may be courteously discussed notwithstanding.

There are many interests involved, some of which are of a mercenary character, then there are prejudices and habits of practice which are very hard to overcome. But it is coming, and we are confident the day is not far distant when all true physicians will be marshalled under one banner, when all *facts* in medicine will be accepted, and the chaff thrown to the winds, and in this union quackery of any kind will find no place.

We have tried to place ourselves in a position to see both sides of this controversy, and have not hesitated to point out the shortcomings of all parties. We still continue to think that the old school, as an organization, has been disposed to view uncharitably any digression from the therapeutic notions which it may have from time to time constituted "regular," and any question as to its dictum has been offensively dubbed "irregularity!"

The so-called regular school should enlarge its boundaries to an extent equal to admitting to fellowship any practitioner who is satisfied with being a physician without qualification.

On this basis we could meet, discuss therapeutic modes, perhaps learn something from each other, and at least dwell together in harmony by exercising mutual self-respect. No compromise is necessary if all will recognize the dual action of drugs, which is an established fact.

One of the chief causes of the present hostile attitude of the schools in medicine is the sectarian names which have grown about the various theories upon which they are founded. The regular, the homœopathic, the eclectic, are each and all names unbecoming that dignity which should attach to the profession of medicine, and while we will admit that they may have been necessary in the past, we feel confident that the present and the future will be better without them. Then we should be freed from these criminations and recriminations. There are two things absolutely necessary to this end—and which may be summed up in the recognition of the dual action of drugs—and these are, the study of drug action for the administration of medicines in the minimum dose, and this is required by the old school, and on the other hand a similar study on the part of homœopaths for the use of drugs in the large doses, which are sometimes required. If this plan were faithfully prosecuted we should find less drugging, fewer instances of resort to cathartics, narcotics, etc., and consequently a more rational practice of medicine, and, in this way, banish some of those differences which are more imaginary than real.

That abominable habit of routine practice is the bane of medical practice. It is this which gives no *quinine* for malarial affections, *iodide of potash* for syphilitic, etc., etc., and in its place we want a system of specific medication which will enable more safety and surety in the selection of drugs. For this purpose we see no

means but the study of the effects of drugs upon the healthy human organism.

Wood, in his work on Therapeutics, says that "the childish absurdity of treating symptoms by such laws as *similia similibus curantur* or *dissimilia dissimilibus curantur*, is at once apparent. Symptoms are merely the surface play of disease, and the rational therapist always seeks out their hidden meaning."

As we do not believe there is a physician to be found who does not use symptoms as an index of conditions, thus interpreting pathologically—and the pathology to be complete must include both objective and subjective phenomena—the above statement appears both absurd and superfluous.

It is impossible to make a complete diagnosis of a case without its symptoms, and it is these which enable us to differentiate one case from another pathologically as well as remedially. It is this knowledge which will break up routine in practice and save us from *iodide of potash* because the patient has syphilis.

The writer was recently in consultation in a case of unmistakable syphilis. The attending physician had prescribed twenty grain doses of *iodide of potash* as the best anti-syphilitic. The patient was lying on a hot day in summer snugly covered with blankets, complained of exquisite sensitiveness of the ulcerated parts, and when asked if there was any article of food or drink that she desired, replied, "Give me something sour." The history of the case showed that this patient had been already plied with *potash*, and so reduced that she required carbon before reaction could set in. We need, then, a remedy which will meet the condition as follows: (1) An antidote to the depletory effects of the previous medication. (2) A remedy which will warm up the system and afford normal nutrition to be performed, and (3) afford protection to the hypersensitive terminal nervous filaments. The remedy was found in the anti-syphilitic *calc sulphurate*, and the result was all that could be expected, as the patient rapidly improved under its administration.

Now, we must not blame the *potash* for its failure and neglect it because of this, but rather study to find out its true sphere, and then we shall not place it to disadvantage again.

Fashion, and the tendency to follow, like a flock of sheep, regardless of data, are other important elements involved in our subject. It ought to be superfluous to say that neither of these factors should enter the consideration.

If these modes were abolished we should have no more treatment of the sick by medicines "*supposed* to act" in a particular way, but we should be able to say just how they *do* act!

In conclusion, we want to urge upon the members of the profession, regardless of school, the importance of meeting together for the purpose of ascertaining our real differences, if there are any, and then settling them without prejudice, in a manly and scientific way, and this will save us from further professional retaliation, much unpleasantness, and suffering humanity should be the gainers.

DIABETES.

The pathology of this disease, notwithstanding the best efforts of some of our ablest pathologists to get at its cause, is still so obscure that it may be safely said no satisfactory conclusion has as yet been reached. The recent debate of the Pathological Society in London, in which some of the ablest investigators in our profession participated, has done much to clear the ground of the uncertain and doubtful and restrict future investigation upon this subject to a narrower compass.

Dr. Dickinson thought the brain must be considered as the primary seat of the disease. In a large number of *post mortem* examinations he had always found the brain diseased, with signs of an altered relation between the tissues. The changes were not peculiar to diabetes though constant with it. Dr. Taylor in his examinations could find no morbid change in the brain, the medulla, the spinal cord, or in the sympathetic ganglia, with the exception of the hyaloid thickening of the blood vessels noted by Dr. Stephen Mackenzie. Some of the sections exhibited bore a great resemblance to the so-called changes in chorea, but he thought he had seen similar conditions in brains and spinal cords which were considered healthy. Since Bernard's remarkable discovery as to the production of glycosuria by injury to the fourth ventricle, we seem to have been working with this observation as a centre. We have taken a physiological experiment as the basis of a supposed pathological fact. He looked upon the disease with our present light as a functional one.

The evidence thus far of an originating nerve lesion is so contradictory that we can form no definite conclusion from that source, and turn with more interest to the careful chemical investigations which have been carried on for many years, in reference to this subject, by Dr. Pavy, with a conviction that we are at last upon the right track to the solution of this difficult problem. He believes diabetes depends upon a dilatation of the arteries of the chylipoietic viscera—a vasomotor paralysis—which allowed the blood to pass to the liver too little deoxygenated. What the liver wants is a good venous blood, producing a maltose forming ferment. Simple venous congestion of the liver never produces diabetes. The severity of the diabetes depends upon the area of the vasomotor paralysis. The area might increase up to the tongue, which becomes intensely red and injected like raw beef. This vasomotor paralysis is referred rather to a disturbance of the sympathetic than the cerebro-spinal system. The conclusion drawn from this very interesting discussion is, that diabetes is not produced by structural lesion of any organ, but by a disturbance of the functions of the liver, induced by a peculiar circulation in that organ creating vasomotor paralysis. A broad field is still open for investigation if we admit the above conclusions, and they seem more plausible than any before advanced. Whether the paralysis is caused by some disease of the sympathetic or by some chemical fault existing in the blood itself, we are persuaded that the line of investigation marked out by Dr. Pavy will yield the most satisfactory results.

We call special attention to the article in this issue of the *TIMES*, on vaccination. It is the most philosophical and satisfactory discussion of the subject we have seen, and answers fully and clearly the many strong objections which have been made against its use as a preventative to small pox.

INCREASING COLLEGE AND HOSPITAL FACILITIES.

The Trustees of the Hahnemann Medical College of Philadelphia have just purchased a large lot of ground on which they intend to erect new college, dispensary and hospital buildings. The ground is situated two squares north of the new public buildings, near the business centre of the city. It extends from Broad street (north of Race street) westward to Fifteenth street, having a frontage of one hundred and six feet on Broad street and one hundred and forty-two feet six inches on Fifteenth street. The entire length of the lot is three hundred and ninety-six feet. The cost of this magnificent site is \$104,500.

It is the intention of the trustees, as soon as actual possession of the property is obtained, to commence the erection of buildings thoroughly adapted in all respects to the needs of a first-class medical college. It is proposed to erect the main college building on the Broad street front of the college grounds. This building will contain the lecture rooms for didactic instruction, the museum, practical anatomy rooms and the various laboratories for the professors and for practical work by the students in the departments of General and Medical Chemistry, Physiology, Microscopy, Normal and Pathological Histology, etc., together with suitable rooms for practical exercises in the various manipulations of surgery, obstetrics, etc. Commodious apartments will also be provided for library, reading and recitation rooms, and for all the conveniences and comforts of the students and teachers.

Contiguous to the college building, and between it and the hospital, will be the dispensary and polyclinic. This building will, of course, include the clinical amphitheatre, so arranged as to secure light from all sides, and will communicate directly with the hospital, as well as with the dispensary. Here will be provided reception and general prescribing rooms, besides rooms for special examinations in private cases and for the management of all cases occurring under the heads of the various specialties. There will also be convenient apartments for the clinical professors, anesthetic and recovery rooms, and rooms for special clinical instruction, demonstration and practice for individual students, or for small classes, especially in gynecology, ophthalmology, laryngology, and in general physical and chemical exploration.

The hospital will front on Fifteenth street. It will probably consist of a central building and two parallel pavilions. Ample room can be provided on the grounds for a hospital to accommodate two hundred and fifty or three hundred patients. The building will doubtless be erected in sections and will be so constructed as to illustrate the highest and best principles of modern sanitary science, and provided with every convenience for the highest welfare of the patients and the greatest educational advantages of the students.

The Faculty have succeeded in enlisting, in behalf of the college, the warm interest of a large number of the most active, influential and wealthy business men of Philadelphia; and it is to the public and humanitarian spirit and the business sagacity of these gentlemen that the college owes its present exceedingly flattering prospects. At last the Alumni of the Philadelphia School, from the class of '49 to that of '83, are to have an institution in which they can feel a good deal of pride, for it is the full purpose of the Faculty and Trustees to place the Institution upon such a basis as that, in point

of efficiency, it shall be, in no single particular, second to any medical school in America.

The Homœopathic Hospital at Boston is to have a four-story brick extension, eighty by forty-five feet in size, which will give room for thirty-eight beds, including a surgical ward for men and another for women, besides operating and recovery rooms and an etherizing department. The cost will be \$60,000, of which \$40,000 was a bequest, and the rest has been raised by subscription.

COMMON-SENSE IN TEMPERANCE REFORM.

An editorial in the September *Century* discusses "The Temperance Outlook" with the following conclusions: "That the temperance question should be made a political question is most desirable. No question more vitally concerns the whole country with respect to its highest welfare. We should have temperance men in office and temperance laws enacted. But temperance must be temperance. It must be a sensible and practical scheme that sensible and practical men will support which shall bring about the desired reformation. It must be a scheme which the great majority of moral men will recognize to be sound in its logic and even in its justice. Anything else than this may, under pressure of an excitement, achieve a temporary success, but only this will be a permanent cure of the rampant abomination. The liquor men are now more defiant and more numerous, in proportion to the population, than in any former period. They work their criminal mills openly in the face of all, and we see the streams of vice and crime pouring forth from these sources to lay waste the community and overwhelm the dikes which philanthropy has erected. The courts, the police, and the public officers generally, seeing the bold mien of these disturbers of the peace, find it easier for their weak natures to humor them and to connive at their wicked works than to oppose them. The great majority of the community are thus oppressed and tyrannized over by this minority, who laugh at law and hound the defenders of law. The only end of this enormity will be in the union of the majority, and this can never be effected by extreme measures or fanatical pronouncements. Discrimination between liquors that are hurtful and those that are (in moderate use) healthful; discrimination between modes of drinking, as treating and drinking at meals; discrimination between places for drinking only and places for lunch or dinner; discrimination between drinking on the premises where the liquor is sold and drinking it at home; discrimination between day and night in the sale—these and other like discriminations are to be made in place of the sweeping demands of the ultra men if a union of temperance forces is to be consummated. Without this union the evil must go on propagating itself daily, and on the so-called temperance leaders must rest the blame. They have constituted an unreasonable shibboleth. When they abandon that the enemy will be conquered, unless meanwhile the enemy shall have conquered all the ground and made our land a moral desert. Admirable laws, exactly suited to diminish the curse and destroy the political power of the rum interest, have been introduced into the New York Legislature, and would have been enacted but for the solid vote against them of the so-called temperance members, directed by their 'Temperance' constituency at home. This class of reformers will have their zeal intensified by the action of Kansas and Iowa, and they may carry a few more of the States. Would to God their success were really success, that the rum interest were stricken to the heart by it! But not until the reaction takes place, and these men are convinced of their error and are ready to build on truth and not on impulse, can we expect that union of all good elements which will finally dig the grave of Rum and bury him beyond all resurrection."

IN MEMORIAM.

At a meeting of the Albany County Homœopathic Medical Society, held July 10, 1883, the following were unanimously adopted:

WHEREAS, We have heard with sorrow of the death of our esteemed colleague, Harmon Swits, of Schenectady, and

WHEREAS, In the history of this society, it is the first time that death has entered our circle, only now to remove from his family and friends one whom we all admire; therefore,

Resolved, That while we bow in submission to the will of an all-wise Providence, we desire to express our sense of the great loss we have sustained by the death of Dr. Swits, and to give expression to our high appreciation of his valued services to the profession of which he was an honored and useful member.

Resolved, That the lesson of his life be not lost to us who remain. Courteous in demeanor; kind and sympathetic in the sick room; skillful and patient in his care of those committed to his charge; devoted to his profession, to his family and to his friends. Such a life needs no eloquence, but its simple record.

Resolved, That we render our most heartfelt sympathy to the family of our deceased friend, commending them to the care and protection of the all-wise Father, who doeth all things well.

Resolved, That a copy of these resolutions be published in the Albany and Schenectady local journals, in the New York MEDICAL TIMES, and that a copy be sent to the family of the deceased.

JAMES W. COX,
J. SAVAGE DELAVAN, } Committee.
W. H. RANDELL,

BIBLIOGRAPHICAL.

A HISTORY OF TUBERCULOSIS, from the time of Sylvius to the Present Day: Being in part a translation, with notes and additions, from the German of Dr. Arnold Spina, First Assistant in the Laboratory of Professor Stricker, Vienna; containing also an account of the Researches and Discoveries of Dr. Robert Koch and other recent Investigators. By Eric E. Sattler, M.D. Cincinnati, O., 1883. Robert Clarke & Co. 1 volume. 12mo. \$1.25.

The experiments of Dr. Robert Koch, which resulted in his discovery of the bacillus tuberculosis, have attracted unusual attention among the profession, and induced immediate and special inquiry into the history of tuberculosis, so necessary for an intelligent understanding of the subject.

In preparing this volume, the aim has been to trace the whole history of opinion from Sylvius to the present time, and to furnish a condensed but exhausted review of the most important contributions to the literature of the subject.

The first five chapters of this work are a free translation, with a few notes and additions, of the first part of the very valuable work of Dr. Arnold Spina, titled "Studien über Tuberculose," which has just appeared in Germany. Dr. Spina is a most formidable critic and opponent of the theories of Koch.

The sixth and seventh chapters are new. Spina brought his history down only to the time just preceding Koch's experiments. These two chapters contain an account of the investigations of Koch and of the various subsequent experiments of other investigators, and their attempts to verify or to overthrow his conclusions. They include a full description of the latest experiments of Dr. Spina, in which he claims to have disproved Koch's theories. A sketch of Koch's reply to Spina is given also. These additions bring the history of Tuberculosis down to March, 1883.

THE ESSENTIALS OF PATHOLOGY. By D. Todd Gilham, M.D. P. Blakiston, Son & Co. Philadelphia: 1883.

The author, an accomplished teacher of many years' experience, has aimed, in this little work, to unfold to the beginner, in a plain, practical manner, the fundamentals of pathology, and, by bringing them within easy comprehension, to increase his interest in the study. With this object in view he has confined himself, in a great degree, to a clear statement of the generally accepted doctrines of the day, leaving the discussion of unsettled questions to larger works. The book will prove of great value to the young student.

THE North American Review for September is an admirably constituted number, whether we regard the timeliness and importance of the subjects presented, or the eminent competence of the authors chosen for their discussion. First comes "State Regulation of Corporate Profits," by Chief-Justice T. M. Cooley, of Michigan. John A. Kasson, M.C., writes on "Municipal Reform." Richard Grant White treats of "Class Distinctions in the United States." "Shooting at Sight" is the subject of some pertinent reflections by James Jackson, Chief-Justice of the State of Georgia. In "Facts about the Caucus and the Primary," George Walton Green unveils the tricks practiced by political managers in large cities. The well-known English essayist, W. H. Mallock, contributes "Conversations with a Solitary." The Rev. Dr. D. S. Phelan contributes an article sparkling with epigrams, on the "Limitations of Freethinking." Finally, Grant Allen, the most charming of all living writers on natural history, discourses on "An American Wild Flower."

THE CENTURY MAGAZINE. — Unusual variety and range in illustrations and reading matter and an out-of-door quality befitting the season are the distinctive qualities of the September *Century*. A fine portrait of Robert Burns is the frontispiece. In the same number is a delightful account of "A Burns Pilgrimage."

A richly illustrated paper on "Cape Cod" has a colonial flavor which allies it to Dr. Edward Eggleston's illustrated historical paper, in the same number, on "Indian War in the Colonies." Striking pictures also accompany Lieutenant Schwatka's account of "A Musk-Ox Hunt." Of popular scientific interest are Ernest Ingersoll's account of "Prof. Agassiz's Laboratory," at Newport, with a portrait of Alexander Agassiz; and "The Tragedies of the Nest," by John Burroughs.

A timely and valuable illustrated article is Roger Riordan's "Ornamental Forms in Nature."

A forcible argument to prove the future supremacy of New York over all the other great cities of the world is made by W. C. Conant, and H. C. Bunner talks encouragingly and entertainingly of "New York as a Field for Fiction."

The second part of "The Bread-winners," the anonymous story which is exciting wide interest and curiosity, reveals its motive as a satire on labor unions and socialism.

"Topics of Time" treats of "The Temperance Outlook," and a variety of interesting subjects.

ALCOHOLIC INHALATIONS. — Dr. Theodor Clemens, of Frankfort-on-Main, uses the following mixture for inhalation in diphtheria and membranous croup (*Allg. Med. Centr. Zeit.* 43, 1882): R. Spirit. vini rectif. 120, 0, chloroform 15, 0, acid salicyl. 10, 0, ol. lanea pini, 3, 0. The oil contains much turpentine, and in its evaporation it ozonizes sufficiently the oxygen of the air, especially as it also contains phosphorus in solution. Even small children inhale it with ease, and the request is natural that other physicians make a trial of it.

CORRESPONDENCE.

A FEW WORDS FOR A WEAKLING.

MESSEURS. EDITORS:—If you had reason to fear that five years of the best of your life had been spent in a vain endeavor you would be cut to the heart by that brief note on the 160th page of your August issue:

"The *odor medicorum* from the Northwest has been anything but agreeable for some time, and the best way to avoid it is by abolishing the whole institution which is responsible for it."

Now I am by no means nice in the nose. I recognize a beneficent purpose in *stinks*. They tell of nuisances to be abated, of carrion to be buried; they attract birds unclean; they are, in a word, Heaven sent *consequences* of decay, of corruption, and of death. I even prefer a moral stink to a physical, because then I know that another Lie is dead or dying—as all Lies must do and will do, always and everywhere. If there were no stinks a Lie would be immortal. Think of that! Some eternal Verity in thrall to a Lie forever! Throttled and down-trodden forever by a Lie! Surely, Heaven's own never-failing promise comes to us, in every moral stink, declaring the doom of another iniquity. Comfort, courage, fresh hope comes with all this. God does not "fold his hands and watch the world go." No, my much-wondering Friend, even in these days He is yet a "jealous God, visiting the iniquities." Learn that, and you have learned all; neglect it, ignore it, deny it, and you too shall stink for all eternity.

Alas, I recognize righteousness in the very "*odor medicorum*" which you have detected, even amidst your home-stinks—quite an olfactory feat; but still the law for the diffusion of gases explains it. I grieve, though, that *this* particular odor should be.

Little cause have I for grieving, if Self were uppermost and all with me. I might rather triumph, saying to many an one "As ye have sown!" None of that do I find in my heart to-day. I see five years of earnest endeavor foiled; I see the progress of a truth hampered; I see a generous people deluded, deceived, disappointed, and a few men beating thistles and asking "Where are the figs; where are the figs?"

If a sense of wrong were potent with me; if to be maligned, calumniated, buried under falsehoods brought resentment, I, surely, might rejoice that now the inevitable harvest is being reaped; but I was fain to believe that whatsoever is true in any man can never be buried—they may pile their dirt-heap mountain high, and yet all that is true comes forth unhurt.

To-day I know that all this is true, a sound belief and a sustaining, be it ever so dark to the timid one.

I have also kept an unwonted silence, for *ubi dolor ibi digitus*; but it is now a time to speak—silence has become culpable.

The sources of trouble in the Homœopathic College of the University of Michigan are threefold: insincerity in the Board of Regents; political influence; an incompetent faculty.

The opening of this college began an epoch in the history of Homœopathy in the United States. For the first time the doors of a State Institution were unbarred, and after a struggle which extended over a quarter of a century. This was accomplished by politicians, using only political means, relying only on political measures. The result amply verifies the adage—"Politics makes strange bedfellows."

There are occasions when a putting-to-bed entails a "delivery." This was such an one. Now for that "delivery." Was it a mole, or a monster or the shapely product of a lawful marriage and a healthy gestation?

In defiance of all "propriety," and to the discomfiture of "the unco gude," brilliant offspring has resulted

from strange bedfellows—and what might not be expected from such an unusual conjunction as Homœopathy and (God save the mark!) "Scientific Medicine"—especially if "Scientific Medicine" felt like it!

Poor Homœopathy, an involuntary Hagar abiding her lot in the tent of Abraham. One Hagar, comely and much desired, was thrust forth and sent to perish in the wilderness—ominous, at least!

The Homœopathic College is not an organic part of the University,* and the Regents have regarded it as a side show of wild beasts and wax figures; as many of the Regents are from the rural districts it must be admitted that their mistake is very pardonable. However, their policy with the College has been restrictive—not openly so, but restrictive; obstacles to its growth and discouraging to its progress have been winked at. More I need not say now—but the point blank charge of insincerity can be fastened upon them whenever the evidence is needed.

Political influence has blighted the College because it has so far shaped and controlled its destiny. The Regents have not heeded the voice of the profession in the State; two politicians, one a Republican and one a Democrat, have had the ear, the favor, and the influence of the Board of Regents. These politicians boast of their ability to seat or unseat a man at their own sweet will, and it is a matter of history that they have demonstrated their power on more than one occasion. The capability to discharge the duties of his chair cannot and does not secure a man in his chair in the Hom. College of the University of Michigan. This may seem an astonishing statement, but it can be substantiated from the very letters of this most commendable brace of politicians. And, more, when they essay to displace a professor they have not hesitated to bear false witness against him. Their letters are evidence for that, too! If the college finally succumbs under such malign influences, I will make the names of these politicians a stench in the nostrils of every honest man.

The incompetence of the faculty has been and is notorious, and that *experimentum crucis* of any system of therapeutics—the CLINIC—is to-day a shameful farce. This is plain language, and it is both cheap and easy to call it "personal;" but the occasion demands it, the situation declares it, and the hard fact demonstrates it. It is stated here and now not from personal feeling—some things are beneath my contempt—but because when Homœopathy is declared to have "failed in the University of Michigan" I want the blame to fall upon those who could only parody Homœopathic practice in *either their public or private capacity*. A pitiful salary of twenty-two hundred dollars a year has made the college in which our system of therapeutics was on trial before its enemies a *city of refuge for our professional paupers*. It may be "fun for them"—but the College?

So far the experiment has cost the people of Michigan nearly one hundred thousand dollars. Money has been lavishly and cheerfully given, and a generosity without a parallel in the history of Homœopathy is receiving such a recompense as would disgrace the devil himself.

The profession at large is not blameless. It has never regarded this College as the peculiarities of the situation demanded. It has forgotten that Homœopathy is on trial and the *jury is not packed*. Homœopathy must *show* its puissance, not shout it. "The immortal Hahnemann" and the "glorious law of Similars," and all that is very cheap here. The inexorable demand is for brains, scholarship, and ability—less noise and more work. This pig-shearing is a failure, of which, be it observed, the "immortal Hahnemann" washes his hands in righteous indignation.

The University of Michigan offers advantages to the homœopathic student which no other college in our school as yet does offer. Here if anywhere the proverbs

* Prof. T. P. Wilson says it is, in an advertising document. As the said document is designed to draw students, he probably thinks that the end justifies the means.

of the future and the real purifiers of our *Materia Medica* from much of its dross can be educated, and this because a costly chemical and physiological laboratory is indispensable. To utilize such advantages we need Professors who are not locked up in a fossilized Homœopathy like a fly in amber—men whose pharmacopœia excludes the polemical high-flyers; men who can command the confidence of the profession and the respect of the student.

The able man must come here, if he will come, at a pecuniary sacrifice; but for the work which is truly done in love there is a Paymaster who is unfailing; who never forgets the workman; who speaks the glad "well done!" when the night cometh wherein no man can work.

S. A. JONES.

ANN ARBOR, Aug. 4.

OBJECTIONS TO VACCINATION.

From time to time a determined opposition to vaccination is developed in certain portions of the community. These objections usually are based upon a statement of facts, that present in an individual case what seem to the lay mind to be cogent reasons to dread the inoculation of vaccine virus more than the results of small-pox. For a case of small-pox at the present day is cared for so quickly and the patient is treated so well that a great part of the terrors of former days have been dissipated from the public mind. The horrors of the old pest house are no more, thank God! Instead of whole families being swept away as by the destroying angel's breath, in a single span, only isolated cases are reported.

The public do not see the vigilance and care with which the practice of medicine is supplemented by trained corps of physicians who visit the very poor and see to it that all are properly protected by vaccination. When they hear of a death from bad vaccine virus, a cry goes up against the inhumanity of vaccination! Is not this the greatest blessing that does the most good to the greatest number? Did not the great Healer of men say, "Inasmuch as ye have done it to the least of these, ye have done it unto me?"

Let me quote the following: "Mr. Ashbery, Senior Member of the British Parliament for Brighton, in the course of a yachting cruise, recently visited a seaport in Brazil where small-pox was epidemic, and in one cemetery alone the burials of those who had died of that disease, from August, 1878, to June, 1879, amounted to the startling figure of 14,375.

"In one day in this cemetery there were buried 812. In another cemetery the interments from small-pox for a similar period were about 13,000, and the total deaths from that disease in less than a year were 27,064. In one section of that country where the population was about 70,000 there were 40,000 deaths from small-pox. In an epidemic on the coast of Madagascar, a little over three years ago, small-pox carried off over 800. Everybody took the disease except those protected by a previous attack or vaccination. Not a single foreigner took the disease, and it was ascertained that they all had been vaccinated."

There can be no doubt in a thinking mind that the greatest result of vaccination has been to modify the virulence of small-pox. We no longer hear of those fearful ravages such as are spoken of by Alexander Mackenzie and Washington Irving, where fathers called their families together and counselled death by murder and suicide rather than await the onset of the monster small-pox, to whose loathsome visitations they had been exposed. Six millions of Indians have been destroyed by small-pox. The annual ravages by small-pox in Europe before the discovery of vaccination footed up half a million deaths. In England alone Dr. Lettsom asserts that the deaths from small-pox reached the startling figure of 70,000 a year. Fully one-tenth of all the deaths in London during the last century are charged to

small-pox. An eminent writer of only a few years ago, speaking of small-pox, said: "Small-pox was always present, filling the church-yards with corpses and leaving in those whose lives it spared hideous traces of its power, turning the babe into a changeling at which the mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to the lover."

Proof exists on every hand that vaccination has proved one of the greatest blessings that ever has been vouchsafed to suffering humanity. The process remains to a degree imperfect, short of what it might be, and this chiefly because so few members of the profession have given this subject the attention that it deserves. A physician whose twenty years of investigation of this subject entitle his views to weight, states that the causes that the profession mainly has to contend with are twofold. 1st. To secure a proper quality of vaccine virus; 2d. To properly inoculate the subject with the same. Do not these propositions both appear exceedingly simple? Nevertheless, if any inquiring mind will start on a brief pilgrimage among the physicians of this city, where there ought to be and generally can be found the best of everything, he will be surprised to hear the complaints that will spring up on every hand. Some say that out of twenty points only one "took." Is that incredible when we know that one of the prominent drug firms in this city received so many complaints about the vaccine that they were furnishing that they had the next lot sent them investigated? The expert reported that the vaccine was so adulterated with a solution of gum arabic that there was very little of the active principle remaining. In another case, a city in which there was an epidemic of small-pox, was supplied with vaccine by a man whose previous calling had been to retail liquor. Why this induced him to palm off a spurious and adulterated article for genuine vaccine is not stated, but the fact remained and was proved so thoroughly that the would-be trifler with human life and health found his occupation gone and decamped from that locality. Many of the points furnished by reputable druggists are seen to be contaminated with pus and blood.

Another cause of poor vaccine of the bovine variety is the taking of grass-fed calves for inoculation. Would it be expected that anything taken from a weak, badly nourished creature, perhaps also suffering from diarrhœa, could possibly be as good as though it came from a sound, healthy animal, well nourished and fed? But this is expensive and would make the profits less, argues the vaccine provider. Perhaps it does, but the production of a superior article of vaccine should not be kept back on account of any reasonable expense.

The vaccine vesicle contains at its maturity a ripened lymph, some of which being subjected to the test of a high power objective in the hands of an experienced microscopist, will be seen to be made up of an aggregation of nucleated cells. It can be demonstrated that the nucleus is the vital portion. It is this nucleus that causes all the phenomena which insure the system against an attack of variola. The cell wall simply is the protecting envelope, just as the shell of the egg protects the yolk and the chick. If this cell wall is impaired or broken down, then the vitality of the nucleus is endangered or injured. The product soon deteriorates and becomes mixed with the detritus of which it is merely a portion. Its power to induce the condition known as vaccinia is destroyed. If this power is not destroyed, it may be greatly weakened by the diminution of the number of sound cells. This often causes that reddish blister-like eruption, that physicians frequently see produced where they had every reason to expect a vaccine vesicle. Imperfect protection always results from inferior vaccine. It also is in order to demonstrate whether there is present any of the cells and germs of other diseases, which have sometimes caused such distressing results after vaccination. The profession will not soon forget the beautiful wife of one

of our foremost pulpit orators, who was vaccinated and ever afterward was a victim of syphilitic iritis and eruptions of a character that even a novice could not mistake. Is not a superior article of vaccine of sufficient importance for some of our leading scientists to come forward and take up the subject? For the protection of the profession, gentlemen whose reputation is beyond question should supervise the production of an article of vaccine upon which the busy physician could rely, and feel that in using it his patients are as safe as science and skill can render them. The subject is of sufficient importance to demand your serious attention and consideration.

The second cause is much easier to remedy, for having the virus of a superior quality, the other objection can be removed by attention to the detail in vaccinating. The secret of success lies chiefly in the care not to go too deep. Simply remove the epidermis so as to uncover the absorbent surface. Use great care not to draw one bit more blood than can be helped. Rub the abraded surface gently with the charged quill and be very careful that the serum that has exuded has time to dry and thus form the best and most natural covering for the inoculated spot. If the operation be properly performed, the place should heal entirely and present the same appearance as the rest of the skin. On the fourth day there will appear a slight redness, followed by a raising of the cuticle. A curiously formed vesicle will appear. No other is like it except that of true variola or small-pox. The centre is depressed, bound down by a string of tissue until the vesicle becomes so full of lymph at maturation that the cord is broken. From concave the vesicle rapidly assumes a convex form; pus soon is present, and it is never safe to take lymph after the vesicle has assumed a convex form. If taken too early, the nuclei are imperfect and the cell walls are thin, easily broken up and immature. Therefore it becomes necessary to use the greatest skill, care and judgment, and to all these must be added a long experience in the investigation of so important a subject. Nevertheless, if all these forces are brought to bear upon this subject a quality of vaccine can be produced that will do away with many just causes of complaint that no doubt exist at the present time. The supply of such an article would be used as rapidly as it could be produced. One of the difficulties would be to procure enough of the best quality. Large capital would be necessary to meet the outlay. But the result would be a boon to the entire medical profession and a blessing to humanity. *

TRANSLATIONS, GLEANINGS, ETC.

TREATMENT OF GUNSHOT WOUNDS.

Summing up Reyher's paper, then, we may with the greatest advantage adopt the following rules for our guidance in cases of gunshot wounds, both in civil and military practice.

The sooner the wounds of entrance and exit are antiseptically occluded the better the prospect for life and limb.

In the vast majority of cases no exploration of any kind should be made; but if the nature of the wound seems imperatively to demand it, the search and all other operative measures should be postponed until they can be done under thoroughly antiseptic (*aseptic*) precautions, and the wound will then require to be drained.

In cases of gunshot fractures, either of shafts of bones or joints, the conditions should be made to resemble those of subcutaneous injuries. This can only be done by primary antiseptic occlusion.

In extensive lacerations, as by explosion of shell or

bombs, primary occlusion may be out of the question, but the parts should be dressed antiseptically at the earliest possible moment.

The discussion of this subject leads naturally to consideration of the memorable case of President Garfield; and though this may seem a little late, it serves us as a most important illustration. Esmarch's review of its treatment is so just and well-founded, yet withal so temperate, that we cannot help but express our surprise at some of the sharp, not to say uncourteous observations with which it has been greeted by some American journals, some of which partake of any characteristic save that of respectful criticism. A careful review of the case as published by the practitioner whose name was so prominently connected with it shows that it was treated in a most shabby antiseptic way. If antiseptics were properly used it does not so appear in the report. First a finger was thrust into the wound, then a Nélaton probe, then a finger again, then a curved probe, and lastly another finger. Here were five explorations without the slightest antiseptic precaution and before the sufferer was removed to the White House. Moreover his clothing was not removed nor any antiseptic dressing applied (according to the "official" report) for eight hours after the injury, and those that were then applied were evidently inefficient, for they shifted and were saturated with blood; nor was any drainage tube inserted. On the second day the bullet hunt was resumed with sounds and bougies, and the attendants arrived at a conclusion that was already self-evident, namely, that no vital organs were injured.

On the nineteenth and on subsequent days a collection of pus was squeezed out, in spite of the known danger of such a measure. A chill occurred on the twenty-first day, and on the twenty-fourth day an entirely insufficient opening was made, which had to be subsequently enlarged and a fluid used for irrigation (solution of *potass. permang.*), which experience has proved inefficient. The septicæmic symptoms continued, and at last the patient martyr succumbed. Esmarch's conclusions, condensed, are as follows:

1. The wound was not necessarily mortal. No important part was injured save the bony spine.

2. The bullet was not the cause of the suppuration, for it was encapsuled, and the adjoining track of the wound was healed.

3. The cause of the suppuration must have been carried in from outside. To account for this we have several futile explorations without antiseptic precautions; the bandage technics were incomplete; the squeezing out of the pus was most injudicious, as were also the repeated probing and then washing out with an inefficient fluid, and the omission to lay freely open the pus cavity.

How different might have been the results if the wound had been treated from the outset with those rigid antiseptic precautions on which the different writers referred to have laid so much stress! An ordinary hospital surgeon who should omit these simple measures in dealing with the veriest hospital tramp would by many be regarded as guilty of criminal carelessness. And how many practitioners are there who cannot remember cases in which death has been the result of an ill-advised eagerness to remove a bullet which might have harmlessly remained, and an unfortunate disregard of just such measures as the authors above quoted so strenuously advocates! Esmarch's paper closes with this statement: "If the search after the bullet had been entirely omitted and the wound immediately closed up in accordance with antiseptic precautions, the President might have been yet alive. Just as in the case of our emperor, from whose integument v. Langenbeck did not remove a single one of the many small shot which he received." It is this last remark which has especially called forth unfavorable comment among our American colleagues. They forget that if the principle were held to be good in a comparatively trifling

case of small shot imbedded in the superficial tissues, the indication for similar treatment was vastly more imperative when the wound was so much more severe. —Roswell Park; *Annals of Anat. and Surgery*, Feb. 1883.

IMPROPER USE OF SULPHATE OF QUININE.—An agent of such general value and extensive employment as *quinine*, and one so potent for prompt and decided therapeutical action, is certainly liable to abuse, and in careless hands may be productive of great harm. *Quinine* has its toxicological effects as surely as physiological and therapeutic properties, and it is as a toxic agent that I will notice it in this paper. For years I have been convinced that it is too recklessly used by the profession, and my own experience has taught me to be more careful and discreet in its administration. I have so very often seen intense congestion of the nervous centres from overpowering doses of this drug, as well as other remote effects due to its impression upon the central nervous system, that I now consider well the size of the dose I shall administer. I have for a long time gradually given it in smaller and smaller doses, obtaining better results with fewer unpleasant symptoms, just in proportion as I have brought my patient gradually under its physiological and therapeutic influence. If the only ill effects of overdosing with *quinine* were the nausea, tinnitus aurium, frontal headache and temporary depression, I would consider this paper altogether unnecessary. It is, however, the more serious and dangerously injurious consequences to which I would call attention. While *quinine* in general, when properly and judiciously administered, relieves congestion, equalizes the circulation, acts well upon the skin, and, to some extent, combats shock and nervous collapse, such is not by any means the case in every instance, for the reverse condition many times obtains, and these very symptoms and conditions are produced and intensified by this same agent.

A few cases from practice will best illustrate some of the pernicious effects of the lavish use of *quinine*. I have times out of mind seen cases of intermittent fever in which the chill had been anticipated and warded off by the timely use of the remedy, but in which the patients for hours would be terribly depressed. They would have the soft, clammy skin, the weak, compressible pulse, the sighing and labored respiration, all of which indicates nervous shock and threatening collapse, and this all due to the profound impression of *quinine* upon the nervous centres.

This is nothing uncommon. All my friends in the profession who have ever given as much as twenty grains of this drug at one dose have seen the same symptoms.

On one occasion I had a lady patient suffering from facial erysipelas. She had a rise of fever for two days, with some very unpleasant cerebral symptoms. On the third day, finding her pulse increasing in frequency and volume, with an increase of temperature, I decided to attempt to check the fever with a commanding dose of *quinine*. Accordingly, I gave fifteen grains of the sulphate at a dose. In three hours she was in a state of collapse, and for a long time it was feared she would not react. Brandy, ammonia and hot whiskey fomentations vigorously used for several hours finally produced reaction.

Last summer I was telegraphed to go to West Point, Virginia, to see a very sick child, in consultation with two of the physicians of that place. The little sufferer was a bright boy two years of age, whom I had assisted into this world while its mother was a resident of this city. The child had been sick for a week, and the attending physicians said it was suffering from "chills and fever," but, said they, "it is so very weak it cannot stand up; we never saw chills do a child so badly before." The little patient was cool, clammy, pallid and very much depressed. I recognized at a glance *quinine* prostration, and to my surprise learned that the child

had taken twelve grains of the sulphate of *quinine* daily for four or five days. In attempting to persuade the child to stand up, I found that it had unilateral paraplegia, and told the attending physician that he had a case of *quinine* paralysis. The child was put on one-third grain *quinine* three times a day, with two grains *potass. bromid.* and two drops fluid extract *ergot.* and an occasional painting of the dorsal and lumbar regions of the spine with a weakened tincture of *iodine*. In six weeks he was well.—C. A. Bryce, M.D., *Medical Herald*, Feb., 1883.

THE INFLUENCE OF ALCOHOL IN THE CAUSATION OF INSANITY. In a paper read before the Sanitary Convention held at Pontiac on the 1st ult., Dr. H. M. Hurd, Medical Superintendent of the Eastern Michigan Asylum for the Insane, argued to show that inebriety in parents is a frequent cause of the insanity of their children, because drunkenness produces a transient insanity even in a healthy brain. Chronic drunkenness produces organic brain diseases bringing in their train impairment of the memory, inactivity of the reason, a weakening of the will and a loss of the natural affections; also moral perversions of vicious propensities, and finally unmistakable diseases of the mind and nervous system—all of which are capable of transmission to children.

That the children of inebriate parents inherit diseases such as epilepsy, hysteria, chorea, and idiocy, or if not actual diseases, nervous symptoms which are abnormally responsive to every form of disturbing influence and easily disordered.

That between the ages of twenty and forty-five insanity is liable to be developed in the children of inebriates, and that insanity of this type is recovered from imperfectly or not at all.

And finally, that however much people may differ as to the expediency of prohibition, so called, in the present state of public sentiment, there should be no difference of opinion among thinking men as to the right and duty of the State to take strenuous measures to prevent the transmission of an inebriate heredity to children.

TRUE DISINFECTANTS.—The Imperial Board of Health, of Berlin, has published a number of experiments which have been made by Dr. Koch, with the view of establishing the real value of many so-called disinfectants. The following are among the more important results of his investigations:

Most surgeons have been satisfied to wash their hands and to clean their instruments with a two per cent. solution of *carbolic acid*. Such a solution is almost inert, and a five per cent. solution is necessary to achieve the desired object.

But what is most interesting is the fact that *carbolic acid* dissolved in oil or water proved itself totally inert. What do our surgeons who still make use of the so-called *carbolic oil* say to that? Koch found that *carbolic acid*, when dissolved in oil or in alcohol, had not the slightest influence on the vitality of any of the micrococci or bacilli.

Concerning *sulphurous acid*, it was found to be powerless against spores; bacilli and micrococci, when exposed to the fumes in a box, were killed within twenty minutes, but were very little influenced, or not at all, when exposed to the fumes in a room at the usual temperature.

Chloride of zinc showed itself just as harmless. A five per cent. solution exerted absolutely no influence on the spores of anthrax, notwithstanding the same had been exposed to the action of the remedy for the period of thirty days.

Only the following remedies can, according to Koch's experiments, be said to be of value as disinfectants: *Corrosive sublimate*, *chlorine*, *bromine*, *iodine*. *Bromine* in form of vapor is, as concerns rapidity of action, superior to *chlorine* and *iodine*.—*Med. and Surg. Reporter*.

RESECTION AND DESTRUCTION OF THE LUNG BY THE THERMO-CAUTERY.—M. Koch, well known by his researches on the microbe of phthisis, has been hardy enough to attempt an operation which certainly will not have many imitators. In two cases of phthisis he resected portions of the ribs to allow the instrument to penetrate into the pulmonary tissue until it reached the cavity, the walls of which were freely cauterized, and the instrument withdrawn. Both patients succumbed; yet the operation seems to have answered the expectations of the German savant. M. Koch thinks that the destruction by the thermo-cautery of limited portions of the pulmonary tissue will be found beneficial in those forms of chronic gangrene of the lung accompanied by abundant expectoration of putrid matter, in acute pulmonary gangrene where the mortified tissue cannot be eliminated as in gunshot wounds, when foreign bodies fall into the small bronchi and not being able to find their way out again by any means, produce destruction of the neighboring tissue, and finally, in those forms of feid and putrid bronchitis where dilatation of the bronchi cannot be demonstrated, and in the rare form of localized pulmonary phthisis.—*Med. Press.*

ACCORDING to Prof. von Pettenkofer, of Munich, a germ, ere it becomes capable of producing actual disease, must not only find a susceptible subject, but must always find that subject in a favorable locality and at a favorable time; and, as disease germs are not, as a rule, very long lived, the vast majority of them die without encountering the necessary conditions. If such were not the case, it is certain that the human race would speedily cease to exist; for the chief of the Micrographical Department of the Paris Observatory has recently discovered that the number of disease germs of one kind or another contained in a cubic metre of the air of the French capital is in winter, 7,000; in May, 12,000; in June, 35,000; in August, 23,000; in October, 14,000, and in November, 8,000; and it cannot be supposed that the atmosphere in London and other large cities is much less tainted than it is in Paris, or that the air, even of country districts, is wholly uncontaminated.

FETID FOOT-SWEAT.—Hypodermic injections of *pilocarpine* have been used in this trouble with marked benefit, without affecting the general organism injuriously. It probably acts by exacting a diverting secretion in the salivary glands.

MAPLE SUGAR.—It is said that the flavor of maple syrup may be communicated to cane or glucose syrup by tincture of grain deprived of its resin by precipitation by water. A great deal of the maple sugar and syrup now sold is nearly pure glucose prepared in this way.

PYROGALLIC ACID.—This acid is recommended in phagedenic chancre in the form of an ointment, 1-4 parts twice a day. It may be combined with starch in the same proportions when there are sinuses, or in chancreoid bubo.

PHAGEDENIC CARBUNCLE.—Mr. Masterman calls attention to the fact that in the grave spreading forms of carbuncle, which preferentially attack the face, albumen is often present in the urine in large quantities; this should be looked for as well as sugar. When the carbuncle does not spread the urine is generally normal.

DIABETES INSIPIDUS.—Dr. T. Hammond Williams gives in the last London *Lancet* two cases of this disease treated with *ergot*, in which the quantity of water was reduced in three weeks from 300 to 70 ounces, and its sp. gr. raised from 1005 to 1018.

RULES FOR EXAMINATION OF URINE.

1. Sediment in the urine has no significance unless deposited within twenty-four hours.
2. Albumen in the urine does not indicate kidney disease unless accompanied by tube-casts. The most fatal form of Bright's disease (contracted kidney) has little or no albumen.
3. Every white crystal in urine, regardless of shape, is a phosphite, except the oxalate of lime, which has its own peculiar form, urine alkaline.
4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.
5. Mucous casts, pus and epithelium signify disease of the bladder (cystitis) or of other parts of the urinary tract, as determined by the variety of epithelium.
6. The urine from females can often be differentiated from the urine of the male, by finding in it the tessellated epithelium of the vagina.
7. Hyaline casts (narrow), blood and epithelial casts signify acute catarrhal nephritis. Much albumen.
8. Broad hyaline casts and epithelial dark granular and oil casts signify chronic catarrhal nephritis. At first much albumen; later less.
9. Hyaline and pale granular casts and little or no albumen signify interstitial nephritis.
10. Broader casts are worse than narrow casts, as far as diagnosis is concerned, for the former signify a chronic disease.
11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts or devour them entirely in a short time.
12. Uric acid in the urine may in Trommer's test for urine form a protoxide of copper, thus often deceiving the examiner in the belief that he has discovered sugar. Thus when urine shows only a trace of sugar, other methods of examination besides the Trommer's must be used—preferably the lead test.
13. The microscope gives us better ideas of the exact condition of affairs in the examination of urine than the various chemical tests. Therefore the time has come when every true physician should know how to handle a microscope.—Dr. Formad; *Louisville Med. News.*

THE WATER-BED AS A LYING-IN-BED.—You all remember the young primipara who was sent in for artificial premature delivery. She was in the eighth lunar month, and was suffering from morbus Brightii. The nutrition of the parts was disturbed by the enormous swelling, and the lesser labia had become gangrenous. The vicinity of such a patient endangers the others. So we put her in a room alone, giving her her own nurse and physician, who were not even to enter the lying-in wards. We did not consider it advisable to bring about delivery in the mother's condition. In any case, the prognosis for both mother and child was bad. The child having been poorly nourished must be imperfectly developed and too weak to live, while the mother's chances of recovery in the present state of affairs would be lessened by artificially produced labor. The lymphatics would then become engorged with this rotten mass, lymphangitis resulting, then the areolar tissue would be involved, and finally our patient would succumb to septic peritonitis. Her treatment consisted in frequent irrigation of the vagina with a three per cent. carbolic solution, and thymol dressing to the vulva, with appropriate diet. We were expectant three days; on the fourth she gave birth naturally to a 2,100 grm. living child. The gangrene spreading, we had her placed in a water-bed, in which she has been now five days without fever and with a good appetite. To put a lying-in woman in a warm bath seemed until recently a strange thing, but theoretically there is nothing against it. The spread of the gangrene is stopped, the putridity is swept away, and she feels perfectly comfortable.—Prof. C. Braun's Clinic; *Obst. Gaz.*

EDUCATION AND CRIME IN FRANCE.—In a report on the connection between education and crime the records of the courts of France show the following result, which is directly opposite to the records for the United States: *First*—That 26,000 persons of the class wholly illiterate furnish five criminals.

Second—That 25,000 of the class able to read and write furnish six criminals.

Third—That 25,000 of the class of superior instruction furnish more than fifteen criminals.

Fourth—That the degree of perversity in crime is in direct ratio with the amount of instruction received.

Fifth—That in the departments in which instruction is most disseminated crime is greatly more prevalent—in other words, that morality is in inverse ratio with instruction.

Sixth—That relapse into crime is much greater among the instructed than the uninstructed portion of the community.—*Sanitarian.*

IODINE PAINTING IN SMALL-POX.—In 1881 there was admitted to the Konotop Hospital a woman suffering from lumbar pain and other prodromal symptoms of small-pox. To satisfy the wish of the patient, Dr. Vetroff painted the whole lumbar region with *tincture of iodine*. On the next day the painted region was found covered all over with a variolous rash, while the remaining surface of the body presented only two vesicles. The course of the disease was remarkably mild. Having learned this curious fact, Dr. Bojinski-Bojko (*Vratch*, No. 1, 1883), when the epidemic of small-pox broke out in his district, began to paint with *iodine* the anterior surfaces of the thighs in every patient who came under his notice in the prodromal stage of the disease. In all four cases treated in this way the rash was strictly limited to the region painted, and the course of the affection was extremely favorable. An attempt to substitute a sinapism for the *iodine* gave negative results.

HERNIARIA GLABRA, besides being of benefit in acute cystitis of the neck of the bladder, has been used successfully in chronic cystitis and in the bladder and urethral troubles attendant upon certain conditions of the womb and vagina.

It seems also to possess an important preventive action in cases of gonorrhœa, *i. e.*, it limits the inflammation to the anterior portion of the urethra, and renders less liable the extension of the disease to the deeper part of the urethral canal, its adjuncts and the bladder. It has been used by one physician in thirty cases of gonorrhœa, and in none of these cases has the inflammatory action passed deeper than is ordinarily found in a simple case of this disease. This preventive action will, as a matter of course, render far less probable that disagreeable but common accompaniment of gonorrhœa, epididymitis.—*Cin. Lan. & Clinic.*

DISINFECTANTS.—Dr. W. E. Buck writes to the *Brit. Med. Jour.*: Most practitioners must have often realized the inefficiency of disinfectants in allaying the fœtor of cancerous ulcers, an annoyance which sometimes troubles the patient even more than the pain, or the thought of death. After failure with the whole round of disinfectants, I tried a saturated solution of *hyposulphite of soda* added to an equal quantity of water, and found it exceedingly efficacious. The ulcerating surface was well syringed and washed with the solution, and was then covered with rags steeped in the solution. Most disinfectants seem to lose their virtue after a few days' application, but I have used this one for months in the same patient with continuous good effects. It is cleanly, has no smell, does not stain, and is very cheap.

CHROMIC ACID.—Dr. Cadell says that warts of the genitals treated with this acid in the proportion of 100 gr. to $\frac{1}{2}$ l of water disappear with marvelous rapidity and with but little pain.

EFFECT OF NOISE ON HEALTHY AND DISEASED EARS.—Dr. D. B. St. John Roosa read a paper on this subject before a recent meeting of the New York County Medical Society, in which he summed up his experiments somewhat as follows:

(1) A large class of persons suffering from deafness can hear quite distinctly when in a noise.

(2) When this is the case, the disease is situated in the middle ear. The disease is usually of a chronic, non-suppurative character; but the same phenomenon is also noticed sometimes in acute and sub-acute affections of the middle ear.

(3) The proximate cause of this is not yet definitely determined, but it is believed to depend on the condition of the ossicles.

(4) Boiler maker's deafness is of an altogether different character from the above.

(5) The latter is believed to be due to disease of the labyrinth or the trunk of the acoustic nerve.

(6) Those suffering from boiler maker's deafness do not hear better in a noise.

(7) Cases of impacted cerumen and other affections of the external and middle ear occur in boiler makers as well as in other individuals.

(8) In disease of the labyrinth the tuning fork C is heard louder and longer through the air than through the bones of the head.

PARALDEHYDE; A NEW HYPNOTIC.—Its chemical composition is $C_6H_{12}O_3$, and it is a polymeric form of *aldehyde*. In physiological action it strongly resembles *chloral*. A dose of three grams (45 grains) procures quiet and refreshing sleep for from four to seven hours. It differs from *chloral* in its action on the circulatory system, strengthening the heart's action, while diminishing its frequency. It has also a well-marked action on the kidneys, greatly increasing the flow of urine. The skin is not at all affected. The drug does not give rise to any unpleasant symptom. Up to the present, *paraldehyde* has been used about 350 times, and has been found a valuable remedy in mania, melancholia and other nervous affections, as well as in the sleeplessness that accompanies acute bronchial catarrh, lobar pneumonia and heart disease.—*Brit. Med. Journal.*

IS TENDENCY TO DEATH DURING PARTURITION HEREDITARY?—Dr. W. Henry Day, in a letter to the *Lancet*, asks this question and cites some cases which seem to prove the affirmative. In one case, a mother, grandmother and great grandmother all died in their first confinement.

HYDROPHOBIA AND THE BITE OF THE COMMON SKUNK.—Dr. Howard Jones, of Circleville, O., after careful inquiry throughout some of the Western States, during which he collected the histories of 53 cases of bites from the common skunk, arrives at the following conclusions: That the bite of the common skunk is, under certain conditions, dangerous, and even extremely fatal, there can be no doubt; and there are many reasons for believing that the disease is identical with rabies in the dog or hydrophobia in man.

DECOCTION OF LEMONS IN MALARIAL FEVER.—Dr. Maglieri, *Gior. Di Clinica E Terapia*, March, 1883, obtained quite as good results with this simple remedy as *quinine*. He found it efficacious in acute and chronic malarial affections. Given four hours before the onset of a fever, it averts the paroxysm. This it did even in cases where *quinine* had failed. In malarial cachexia the general health improved, and the liver and spleen were much reduced in size.

TO STOP HICCOUGH.—A correspondent of the *Medical Record* recommends firm compression of the heaving ribs by both hands. In two cases where this was done the hiccough almost instantly ceased.

GOITRE.—One part of *liq. kal. arsen.* (Fowler's sol.) to three parts of water was used in 100 cases. Ten to fifteen minims were injected parenchymatously two or three times a week with better and more permanent results than the use of *iodine*.

PURE IRON-DYED SURGICAL SILK.—For a number of years past Professor W. H. Pancoast, of Philadelphia, has been in the habit of employing pure iron-dyed silk for sutures, and the success that he has met with in its use is a proof of its great value. We take pleasure in calling the attention of our readers to an article by this celebrated surgeon in the issue of the *Medical Bulletin* for July, in answer to the numerous inquiries received by him from various sources. The well known strength of silk, its delicate structure, non-inflammatory character, and the fact that it is an animal substance, all furnish strong arguments in favor of its universal employment in surgery. The advantage of the iron dye is that it does away with the irritating lead employed to bleach white silk, and the black color renders it easy to distinguish, no matter how fine the suture employed. Prof. Pancoast's description of the operations in which he finds the black silk suture peculiarly applicable is very interesting. His operation for varicocele, in which he employs this silk, possesses many advantages over that of Dr. Arthur E. Baker, of London, which has excited attention in surgical circles of late. Baker makes an incision, separates the veins of the cord from the vas deferens, then passes a needle threaded with twisted silk behind the veins, after which the veins are permitted to drop back into the wound. The needle is then returned in front of the veins, which are then secured in the loop of the ligature through the original opening. Prof. Pancoast's operation is much simpler in that no incision is necessary and that the strong silk ligature crushes the veins against the metallic button. The crushing of the veins against a solid, restless substance is unique, and those who have followed this excellent plan can certify as to its efficacy and the advantage of the strong silk ligature in obtaining the full results of the operation. At the end of three days a lump of plasma usually forms and the suture is removed.—*Therap. Gaz.*

As to the success of complete isolation in preventing infection by cholera, the fact is quoted that in 1831 the court of Russia isolated itself at Peterhof as long as the epidemic continued. Round the imperial palace the pestilence made terrible ravages, but not one of the ten thousand inhabitants of the palace was attacked. In 1855 the military school and a prison at Constantinople isolated themselves in the midst of the city full of cholera, and not a pupil nor a prisoner suffered. In the same year Sicily kept strictly isolated from all communication with the infected countries, and the island remained exempt from the terrible disease.

THE MECHANICAL TREATMENT OF NEURALGIA.—The author (Dr. E. Rasori) uses the tuning-fork in the treatment of neuralgic pains, applying its vibrating over the course of the painful nerves. He reports the experiments of Boudet, who, by means of the tuning-fork could check a neuralgia for some time. Boudet used the instrument in accordance with the ideas of Granvill, who thought the neuralgia consisted in a peculiar vibration in the nerve trunk to induce different vibrations in the painful nerves. He mentions many other experiments from Bal, of Paris, and Renzer and Growers, of London, where the application of the instrument was of benefit. The instrument was applied for from twenty to forty minutes, when the patient was relieved without further treatment. During the neuralgic attacks one of the women had suffered from vomiting, but after the relief from the application she was troubled no more in this way.—*Bollettino della Societa Hancisiana, Roma.*

**HYDROBROMETHYL AS AN ANÆSTHETIC IN PARTURI-
TION.**—Dr. C. Wiedemann, in a lecture delivered before the St. Petersburg Medical Society (*St. Petersburger Med. Wochenschrift*), treats quite at length of *hydrobromethyl* or *ethylbromide* (chem. form., C_2H_5Br), a clear, very volatile liquid, having a pleasant ethereal odor.

It is administered in the same manner as *chloroform*, either by the aid of a funnel or simply inhaled from a folded cloth. It must be given freely, and especially during the absence of a pain. Care must be taken that complete narcosis is not produced; patient must be able to answer all questions clearly and distinctly, and this degree of anesthesia is sufficient to render parturition perfectly painless.

The following are presented as some of the advantages of this anæsthetic during accouchement:

1. There is no danger either to mother or child; narcosis is easily controlled; patient is not unconscious.
2. The rapidity of its action, requiring only a few minutes, while *chloroform* acts slower, and to be of any benefit deep narcosis must be produced.
3. The duration of labor is not lengthened, as after the use of *chloroform*.
4. There can be full consciousness and yet absence of pain. Patient can answer all questions and carry out the orders of the accoucheur.
5. Post partum hemorrhage after *bromethyl* anæsthesia has not been known to occur; in this respect it is far superior to *chloroform*.

THE ANTAGONISM OF OPIUM AND NICOTIN.—Donacorsi gives the continuation of his studies on the antagonism of various remedies, which he began in 1877 with *opium* and *belladonna*. His experiments were made on rabbits, guinea pigs and frogs. From the results obtained with *morphia* and *nicotin*, together and separately, and with *morphia* and *hyoscyamin*, *morphia* and *aconitin*, and *morphia* and *daturin*, he arrives at the following conclusions:

- (1) The antagonism between *morphia* and *nicotin* is a demonstrated fact.
- (2) There is no antagonism between *morphia* and *aconitin*, *hyoscyamin* or *daturin*.
- (3) *Opium* and *morphia* act particularly on the cortical part of the brain, and on the arachnoid, producing hyperæmia, congestion, paralysis, especially of the vasomotor and of the respiratory centres.
- (4) *Nicotin* acts particularly on the brain and medulla oblongata, at first irritating it, and in prolonged action paralyzing the nerves which arise from it.
- (5) Neither *morphia* nor *nicotin* has any special action on the blood, liver, kidneys or bladder.
- (6) *Opium* has a depressing action on the splanchnic nerve, while *nicotin* excites the intestinal ganglia.
- (7) Death with *morphia* and *nicotin* is by asphyxia, with *morphia* from its paralyzing action, with *nicotin* from its tetanising action on the centre of circulation.
- (8) In poisoning with *nicotin*, *opium* or *morphia* is to be preferred to any other remedy.—*Archiv. Med. Ital.*, Fasc. III. and IV., 1882.

INTESTINAL CONCRETIONS.—Dr. Schuberg considers that the chief seat of intestinal concretions is the cæcum. They may occur also in the colon. They are of two kinds, either regular fecal calculi or concretions. The latter are consequent upon the former, with the exception of those due to the copious use of grain or of *magnesia*, etc. All other concretions are fecal calculi impregnated with inorganic salts, and in the centre fecal residues or foreign bodies can almost invariably be found. Foreign bodies generally form the starting point of concretions; the most common are the seeds of fruit and hairs. In man it is probable that hair often gets into the intestinal canal from the habit of biting the beard, and this is perhaps the cause why 80 per cent. of intestinal calculi occur in man and only 20 in women.—*Virchow's Archiv.*, Vol. XC., p. 73.

ANALYSES OF FOODS.—In a long and interesting article in the *Pharmaceutische Centralhalle* on the nourishing powers of various natural and artificial foods for infants and invalids, Dr. Stutzer, of Bonn, gives the following results as far as concerns their nitrogenous constituents:

<i>Flesh Formers.</i>	<i>Per Cent.</i>
Caviar.....	25.81
Revalenta.....	19.93
Smoked ham.....	18.93
Fresh beef.....	18.53
Fowl (breast).....	16.56
White of egg.....	13.48
Yolk.....	13.01
Infants' food.....	9.90
Condensed milk.....	8.79
White bread.....	7.20
Biscuit.....	6.71
Oysters.....	5.78
Cow's milk.....	4.00
Extractum carnis.....	3.40
Malt extract.....	0.28

The above table gives rise to some curious reflections. The wonderful nourishing powers attributed to oysters are found to dwindle into insignificance when compared with other food; for instance, a single hen's egg contains as much nourishment—that is to say, as much flesh-forming material—as fourteen oysters, while about one-quarter pound of lean rump steak is equal to about five dozen of these delicious but delusive molluscs.

With regard to condensed milk, it contains much less flesh-forming material than is generally supposed. Taking four per cent. for cow's milk as a fair average, the directions on the can, if followed out, give unexpected results. For children's use we are told to dilute the condensed milk with four or five parts of water. Taking the lowest figure, we should then have five parts of diluted condensed milk which, according to Dr. Stutzer's figures, would only contain 1.76 per cent. of flesh formers, instead of four per cent., while the milk sugar would be increased from 4.5 to 10.85 per cent. We know that woman's milk contains more sugar than cow's, but still not in the above surprising proportions. Now that so much canned milk is used for infants brought up by hand, it becomes a question how far mothers who cannot suckle their children are responsible for the health and even lives of their children by giving them milk from the tin cow instead of that from the living animal.

Dr. Stutzer further exposes the often-exposed superstition about the nourishing powers of beef tea. He shows that we would have to take half a gallon of beef tea made with a pound of beef to each pint of water before we got as much nourishment as is contained in a quarter of a pound of steak. The high value of eggs, too, is well shown; in fact, roughly speaking, a couple of eggs weighing three and a half ounces are about equal to two ounces of good rump steak.

The highly nourishing powers of caviar will no doubt strike the "general" with amazement.

PROFESSOR RUDOLPH VIRCHOW, the most eminent physician and surgeon in Germany, if not in the world, has published a card withdrawing from the Society of German Physicians. The cause for this action, he states to be, that during his illness last winter he received a box of pills from an apothecary in Schaffhausen, which he took with good effect. He subsequently wrote a note to the apothecary, thanking him for his courtesy, which the latter printed without his knowledge. Although the note contained nothing that could be construed as an advertisement for the pills, the physicians set up a terrible hue and cry, and his name was placarded by the officious organ of the society referred to above. Inasmuch as the pills contained no secret remedy or patent medicine, and as he was not responsible for the publication of the note, he frankly declares

"that he can no longer belong to a society that arrogates to itself the right of so arbitrary and offensive criticism," and he adds in closing his letter, "It is to be hoped that a similar spirit of petty obtrusiveness, such as is shown in this instance, does not now and never will prevail among the medical faculty." Dr. Virchow has dealt a hard blow at the pretensions of medical guilds, which is applicable in places nearer home than Germany.

ABDOMINAL INJUNCTIONS DURING PREGNANCY.—Dr. Burke, in the *New England Medical Monthly*, says: In the last three or four months of pregnancy all women suffer discomfort from the distension of the abdominal walls, which I have found greatly relieved by a free use, at least once a day, of some unctuous material, as *vaseline* or *sweet lard*, and in many cases the formation of *lineæ albicantes* is prevented.

EUCALYPTUS IN BALDNESS.—A California physician was in the habit of pounding to a pulp the leaves of *eucalyptus*, which he applied to his head for the cure of headache, and was surprised to find a new and abundant crop of hair commence to grow.—*Druggist*.

TEST FOR IODINE IN THE SYSTEM.—Dr. Starke makes use of the following test to ascertain whether his patients have followed his directions when he prescribes iodides. It might also be made use of by a physician to learn whether a patient has taken iodides against his wish. He lets the patient spit on a piece of white paper and then spreads some *calomet* over it, or he sprinkles *calomet* on any sores that the patient may have. The *calomet* turns bright yellow if there is any *iodine* in the system.

GOA POWDER IN THE TREATMENT OF RINGWORM.—Dr. A. C. Love, in *Med. Brief*, recommends the use of an ointment containing from five to twenty per cent. of the powder, its strength being regulated in accordance with the tenderness of the part to which it is to be applied. Only the weaker preparations are admissible in the cases of young children; and the parts anointed should be protected with some secure covering that the ointment may not be conveyed by the hands to other parts of the body. Usually one or two applications suffice to effect a cure.

FEW remedial measures in any disease are entitled to more eulogistic mention than is *collodion*, in the treatment of orchitis—swelling of the testicle. From its uniform contractile effect, no medical agent exists that meets better the indications of this malady.

ERGOT IN DELIRIUM TREMENS.—Dr. Arnoldon (*Deutsch Med. Zeit.*) has used *ergot* in several cases of mania-a-potu, with the effect of speedily controlling the delirium. He explains its action by its influence in contracting the cerebral blood vessels.

PERITONEAL ABSORPTION.—M. Remy (*Le Prog. Méd.*) has been injecting the blood of a dog into the peritoneum of rabbits. This method has been recommended to take the place of venous transfusion. The peritoneal surface absorbs the injected blood through the lymphatic vessels, principally those traversing the inferior surface of the diaphragm. Consecutive peritonitis is rare, if antiseptic precautions have been taken. It is difficult to find the injected blood globules in the general circulation; the last traces which they leave are at the lymphatic ganglions. Are they destroyed in their passage through these organs?—(T. M. S.)

VACCINATION.—The discussion of the subject of vaccination, at a recent meeting of the Medical Society of Louisville, evinced a strong disposition on the part of the profession to return to the use of humanized vaccine virus.

NITRATE OF URANIUM.—Dr. J. C. Kilgour, in *Medical Brief*, relates an aggravated case of diabetes in an old man, in which he prescribed the following: *Nitrate of uranium*, 12 grains; distilled water, one ounce; dose ten drops three times daily in a teaspoonful of water. A perfect and permanent cure was effected.

ANTAGONISM BETWEEN SYPHILIS AND VACCINE.—The *Drug, Cir. & Chem. Gaz.* for May, 1883, says that Dr. Polin inclines to the belief that there is an antagonism between the vaccine virus and that of syphilis. He was led to this view by the results of some vaccinations performed by him in Algeria. Of 471 children, the vaccination was successful in 410, all of whom were free from any syphilitic taint. Of the 61 children in whom the inoculation did not succeed, 48 presented indubitable evidences of syphilis. (We have made the same observation.—Eds.)

A NEW GALACTAGOGUE.—According to Dr. Anderson (*Gaz. Méd. de Paris*), nursing women in Jamaica are accustomed to drink an infusion of the leaves of *Gossypium barbadensis*. Six or eight leaves are sufficient to make a cupful of this infusion, which, when sweetened with sugar, has a very pleasant taste, may be taken to the extent of four or five teaspoonfuls a day without inconvenience, and invariably stimulates the flow of milk.

TREATMENT OF INFANTILE PARALYSIS BY ELECTRICITY.—Dr. Dive (*Thèse de Paris*, 1883), from very complete and interesting observations, concludes: 1. Continuous currents applied near the beginning of the disease may cure. 2. Induced currents are efficacious later in the disease, and when the movements return in the paralyzed limbs. 3. The two forms of electricity combined and continued for a long time, produce the best results, especially in desperate cases.

THE RISKS OF "MASSAGE."—Dr. Julius Althaus, M.D., physician to the Hospital of Epilepsy and Paralysis, Regent's Park, deprecates the abuse of massage, a practice often now employed where it can be of no service. "It is well known that at various times epilepsy, idiocy and some forms of insanity have been treated by massage and gymnastics; but, fortunately, we now hear very little of such therapeutical aberrations.

"It appears to me that diseases of the brain and spinal cord must, on account of the anatomical situation of these organs, be inaccessible to the influence of massage, which can only be applicable to more superficial parts of the body. Apart from this, however, it is important to consider that many of the most important diseases of these organs are of an inflammatory or irritant character either primarily or secondarily; and this should make it self-evident that massage should not be used for their treatment, even if the suffering parts could be reached by it. I will here only allude to many forms of cerebral paralysis from hæmorrhage, embolism and thrombosis, which are followed by sclerosing myelitis of the pyramidal strands, and most forms of primary, lateral, posterior, or insular sclerosis of the spinal cord.

"That which may be good for developing and strengthening healthy muscles, or muscles which have been enfeebled by disease or certain local morbid conditions, etc., is not for that reason suitable for the treatment of muscular paralysis owing to central disease. In most cases of lateral and insular sclerosis, which are, unfortunately, now much treated with massage and exercises, rest is indicated rather than active exertion; and overstraining of the enfeebled muscles acts prejudicially on the state of the nervous centres. I have recently seen quite a number of instances in which the central disease had been rendered palpably worse by procedures of this kind; and in a case of cerebral paralysis, which was some time ago under my care, the patient had, after four such sittings, been seized with collapse, which nearly carried him off."—*Brit. Med. Journal*.

ALCOHOLISM A CAUSE OF STERILITY.—In the course of the Gulstonian Lectures on Sterility (*Brit. Med. Jour.*, April 21, 1883), Dr. J. Matthews Duncan attributes a causative influence to the free use of *alcohol*. Alcoholic drinking, he says, has, in addition to the general or constitutional disorder which it produces, well-ascertained power, in certain cases, to induce disease of the internal genital organs. That which is most easily and distinctly made out is chronic ovaritis. It often comes and goes in the presence or absence of the cause. When it is present, sterility is not always a result, but frequently so, and its cure is often followed by the disappearance of the sterility.

At a recent meeting of the College of Physicians, of Philadelphia, Dr. J. M. Keating made some observations on the salivary digestion of starch by infants, concluding as follows:

The saliva of some infants possesses the property of converting starch into glucose, regardless of age.

The age of the infant cannot be taken as an indication of this property of its saliva.

When such a condition is found to exist, a small quantity of well prepared farinaceous food is valuable as an element in the diet, incorporated with mixed cow's milk.

An examination of the stools of infants so fed would be a guide as to the quantity of starchy food to be used, and when farinaceous food is employed, slow feeding is probably preferable to the bottle.

FERROCYANIDE PELLETS IN TESTING FOR ALBUMEN.

—Dr. Pavy recently communicated to the Clinical Society of London the following original method of testing for albumen in urine. The test-substance consists of a pellet composed of *sodic ferrocyanide* and *citric acid*. This is placed, crushed or not, in a test-tube and the urine poured on it to the height of an inch. On solution of the test-agent in the urine a cloudiness or precipitate is subsequently formed, which indicates the presence and, roughly, the amount of albumen present. Heat is unnecessary (except to clear the urine if lithates be present), and therefore a phial or wine-glass will do as well as a test-tube in many cases. Acid (*citric*) enough exists in the pellet to free the *ferrocyanic acid* by which it acts, and also to make the urine itself acid if alkaline, and so procure solution of phosphates and remove this source of fallacy. Oleo-resinous matter, if present, gives a turbidity; but this is so with the *nitric acid* test, and may be obviated by the same means as when using the latter. If preferred, the pellet may be dissolved in water, and the solution when slowly poured along a test-tube containing urine will give the characteristic turbidity at the junction of the two fluids if albumen be present. The *ferrocyanide* test is very delicate, and will detect the smallest quantity of albumen.

THE CAUSES OF MALARIA.—Signor Torelli, who has recently published a map illustrating the prevalence of malaria in Italy, holds that the two principal causes are the spread of railways and the destruction of forests. Railway embankments interfere with natural drainage, and the destruction of forests causes long periods of drought, during which the earth becomes dry and porous as a sponge, so that when the rain does fall, instead of running off from the surface it is absorbed by the soil, which thereupon becomes moist and gives forth noxious vapors for a long period.

A WRITER in the *Phila. Medical Times* declares that alcoholism is unknown in Brazil, and that the cause is coffee. Cafés in which the delicious infusions of the bean are dispensed abound there, as saloons for malt and spirituous beverages abound here. A leading medical authority of Rio de Janeiro declares that the number of drunkards in a country is in inverse ratio to the amount of coffee consumed.

THE INFLUENCE OF ALCOHOL ON THE DEVELOPMENT OF SKIN DISEASES.—Janin, *Th. de Paris*, says:

1. *Alcohol* is neither destroyed nor transformed within the organism, but remains there for a considerable time, and is eliminated, in great part, if not entirely, by the kidneys, the lungs and the skin.

2. The bodily disturbances occasioned by this agent consists partly in intense congestion of the organs with which it is chiefly brought in contact, and partly in a profound alteration of the tissues and more important nutritive functions, which terminates in the production of genuine cachexia.

These disorders produce their most injurious effects on certain organs, particularly the skin, thus making it easy to explain the influence exerted by alcoholism upon the several varieties of cutaneous disease.

3. Alcoholism, by its unaided power, is capable of evoking morbid cutaneous phenomena, whose underlying cause, however, is to be sought for in some special constitutional predisposition, *i. e.*, in either the arthritic, herpetic, scrofulous or syphilitic diathesis. But these effects are seldom met with; and what we most frequently observe, and should always bear in mind, in respect to this condition, is the important part it performs in the maintenance and aggravation of pre-existing disease, to which it sometimes imparts a very serious character.

CHLORAL HYDRATE AS A VESICANT.—Dr. F. D. Ritter, of Gaines, Pa., writes (*New York Medical Journal*) that when powdered *chloral*, sprinkled upon ordinary adhesive plaster and melted by a gentle heat, is applied warm to the part where the blister is wanted, within ten minutes the work of an old-fashioned blister is accomplished. The great advantages of the chloral plaster over the cantharidal are: 1st. Its rapidity of action, thus relieving pain and producing the counter-irritation upon an engorged organ before the congestive action has had time to pass into more than the congestive stage; 2d. Its ease of application; 3d. It need never be taken off to have the blister dressed, but the original plaster may remain until the sore is entirely healed, and the plaster loosens and comes off itself.

A NOVEL AGENT IN THE RADICAL CURE OF HYDROCELE.—J. E. W. Walker, M. R. C. S. E., L. S. A., late H. M. 5th Regt., writes to the *Brit. Med. Journal* that, by an accident, he injected *liquor ergotæ* in place of *tincture of iodine*, which it was his intention to throw into the cavity, for the radical cure of hydrocele of the tunica vaginalis. No inflammatory state occurred, and there was entire absence of pain, so that the patient was allowed to return to his ordinary occupation the next morning. To the present, some seven years having elapsed, there has been no return of the abnormal secretion. He has since, on two occasions, used the same plan with perfect success, and he attributes the cure to a specific action, exerted by *ergot*, which re-establishes the balance between secretion and absorption.

THE SECRETION OF THE HUMAN LACHRYMAL GLAND.—Magaard (*Arch. f. Path. Anat. u. Physiol. u. f. Klin. Med.*, LXXXIX., 2, 1882) has been investigating the secretion of the lachrymal gland in man. The results of his observations may be condensed as follows: 1. The lachrymal secretion is very variable in quantity, from various psychical and other causes. 2. By careful calculation, it was estimated that both lachrymal glands secrete in twenty four hours 6.4 grammes of fluid. 3. *Atropine* diminishes the secretion in time. 4. *Eserine* annuls the action of *atropine*, and in a short time increases the secretion. 5. Irritation of the sympathetic nerve in the neck by the Faradaic current seems to accelerate the secretion. 6. The secretion coagulates by heat, and contains albumin and the chlorides, but no phosphates.

THE PROPORTION OF PERSONS WHO CAN BE HYPNOTIZED.—Dr. Liébault (*Revue Méd. de l'Est*) found that among 1,014 persons whom he attempted to hypnotize, 27 were entirely unaffected, 33 were only made tired and sleepy, while the remainder could be put into conditions varying from light sleep (100) to the profoundest somnolence.

VIBURNUM; PRUNIFOLIUM AND OPULUS.—The *Therapeutic Gazette*, for September, 1882, contained a long article by Dr. J. M. Blackerby in praise of *viburnum prunifolium* as a remedy in uterine diseases. *Per contra*, Dr. A. E. M. Purdy in *N. Y. Med. Journ. and Obstet. Review* for November is emphatic in recommending *viburnum opulus* as yielding more positive results than its congener, especially when employed for dysmenorrhœa and uterine pain.

Confirmatory cases are given by both writers, but the weight of evidence seems to be rather on the side of Dr. Purdy's position.

JONATHAN HUTCHINSON'S ADVICE TO MEDICAL STUDENTS.—If now I were to sum up in one sentence what I have been enforcing, it is this: The secret of all noble life lies in belief, and the characteristic of all noble minds in the vigor with which they believe that which is true. Try to attain belief in the reality of all things; so shall you never want for motives; so shall you be able to live and work without hurry and without sloth. Finally, permit me to commend to you this formula: prize strength, love the beautiful, practice self-denial, and be patient.

The aim of liberal homœopathy is well set forth in a recent issue of the *Hahnemannian Monthly*, which says: "A few years ago the editors of the NEW YORK MEDICAL TIMES dropped from the title of their journal the distinctive word 'homœopathic'; now they boldly urge the renunciation of the word as applied to our school of medicine. If we are emancipated from the thralldom of *sect*, we shall not only save our school from imminent dissolution, but shall also become an integral part of the medical profession of the day, honored as true, broad, liberal, progressive physicians. But if we cling to the name which by no means represents the catholicity and spirit of the new school, we are doomed to annihilation; and more, we become the common enemy of all allopaths and also of all progressive homœopaths. The neutral ground upon which a lasting truce is to be consummated is the common acceptance of the dual action of drugs. No one denies that *ipœcac* in one dose will vomit, and in another will allay vomiting; therefore no one will contend with another if only this plain truth is adopted as the universal motto of the medical profession."—*Medical Record*.

LITHOTOMY IN CHINA.—Dr. J. G. Kerr, of Canton, China, reports for the past year's work forty-seven cases of lithotomy, among which there were only two deaths, and twenty-three cases of lithotomy with one death. This is wonderful success if it be remembered to what bad hygienic conditions the majority of those operated upon have been exposed; also, that the heat is intense almost the year round in Canton. Dr. Kerr believes that without complications and by proper preparatory treatment that the operation for stone should always be successful.

Dr. Kerr prefers Bigelow's operation, when feasible, but says that the Chinamen being physically smaller as a race than the European, the urethra is too small for the evacuating tubes.—*Western Lancet*.

DIARRHŒA IN INFANTS.—Dr. Lewin has found great success in the treatment of diarrhœa in young infants by giving them soluble *albuminate of tannin*, made by adding white of egg to a solution of *tannin*; the white of egg must be previously beaten up with some water.—*Therap. Gaz.*

SALICYLIC ACID IN NIGHT-SWEATS.—The following powder is recommended by Dr. Konhorn in the night sweats of phthisis: *Acid salicyl.* gr. 45, starch 3 iiss, chalk 5 iiss. The entire body of the patient is dusted with this powder at bedtime. The author claims to have obtained great success by this treatment. The same powder is employed in the Austrian army in sweating of the feet.—*Memorabilien*, Nov. 15, 1882.

RAPID DILATATION OF THE CERVIX UTERI.—Dr. John Ball, in a paper read before the Kings County Medical Society (*Brooklyn Proceedings*, April, 1883), claims to have obtained wonderfully successful results by this method in the treatment of stricture, chronic endo-cervicitis, conical cervix, flexions, sterility, etc. He divulges the cervix thoroughly and forcibly in every direction by means of an instrument, and then introduces a pessary. He related several typical cases, and remarked that he had made up his mind "that the operation is quite as simple and safe as any other operation for the removal of these difficulties. It establishes a different nutrition at once, and thus removes the conditions which cause the pain and suffering." In the discussion which ensued Drs. Skene and Freeman took a less favorable view of the treatment. Dr. Reese thought it might become very popular were it not for the want of courage among practitioners.

EAR NOTES.—A *Pieric acid ear*. The indications for *peric acid* that Dr. Cooper has found reliable, have been noises in the head and a tired feeling in the chest.

A *Hydrastis ear*. The right tympanic membrane is not perforated, but it is bulged outward to a slight degree, is purplish looking and the malleus handle is of a pinkish suffusion; the left membrane partakes of the same characters, though not bulged.

Possible causes of deafness. Dr. Cooper, in the *Homœopathic World*, notes among the possible causes of deafness, four cases where they were in the habit of taking large quantities—"heaps"—of salt. He mentions three other cases where deafness followed the taking of *chloroform* or *chloral*.

The antidotes to *natrum mur.* (salt) are *apis*, *arsenicum*, *camphor*, *phosphorus* and *nitre*.—*U. S. Med. Invest.*

PREPARATION OF BORACIC ACID FOR USE IN SKIN DISEASES.—According to the *Archives of Dermatology*, *boracic acid* should be dissolved in *glycerine*, this solution incorporated with fatty bases of white wax and *almond oil*, not *vaseline*, to produce a soft, homogeneous, cream-like compound, free from all the usual sharp-edged, irritating, crystallized plates of *boracic acid*, which are so hard to reduce to an impalpable powder.

DYSPNOEA DUE TO SALICYLIC ACID.—Dr. Louvain, of Carlsbad, has met with several cases in which difficulty of breathing was due to the administration of *salicylic acid*; the breathing was labored and rapid.—*Bert. klin. Wochenschr.*, 1883, No. 16.

CONTAGION OF MEASLES.—Dr. A. Beclera has made a careful study of all conditions attending the contagion of measles, from which we select his more important conclusions: Rubeola is contagious from the commencement of the period of invasion to the end of the stage of eruption, a period extending through from eight to ten days. The contagious principle is contained in the secretions of the respiratory mucous membrane, and it still remains to be proved that it has anything to do with cutaneous desquamation. Though this contagion is diffusible, it is so only to a slight extent, and soon loses its active properties, and does not remain in the rooms occupied by the sick. The period of incubation lasts from 13 to 15 days. No immunity is obtained by the presence of any other eruptive disease.

SIR HENRY THOMPSON ON CIGARETTE SMOKING.—In a letter to the *Lancet*, Sir Henry Thompson states, that if cigarettes are smoked in a holder, with a bit of cotton wool interposed, they are less injurious than cigars or pipes. Smoked in the ordinary way, held between the teeth and smoked nearly to the end, they may be most hurtful.

SOMETHING PRACTICAL ABOUT MICROCOCCI.—A gentleman well worthy of confidence (according to the *Med & Surg. Reporter*, May 26, 1883) describes his belief in the following proposition: that in scarlet fever, measles, puerperal fever, and the like, when a microscopic examination of the blood has demonstrated the presence of large quantities of granular matter (call them micrococci, or whatever you choose), the prognosis is very bad. He is also convinced that alcohol possesses great power to alter this morbid condition of the blood. As soon as he has reason to suspect a grave case, from the severity of the symptoms, he commences to use alcohol and pushes it to the verge of intoxication, and he has had most excellent results.

BROMIDE OF ETHYL, THE MOST PERFECT ANÆSTHETIC FOR SHORT, PAINFUL SURGICAL OPERATIONS.—Prof. Chisolm, in a paper read before the Academy of Medicine, Baltimore, after confessing former ill-success with this agent, and a consequent prejudice against it, says: "Having found out how to use it, and what to expect from its administration, I can obtain the most brilliant results from it, and have become quite enthusiastic in its praises."

METHOD OF ADMINISTRATION.

"My experiments have taught me that the mode of administering the *ethyl* should differ totally from that used in giving *chloroform*.

"Instead of a *chloroform* vapor freely diluted with atmospheric air, a saturated *ethyl* vapor must be inhaled, to the exclusion of atmospheric air, in order to obtain speedily and effectually narcosis.

"In my early experiments with this new agent I had not yet discovered this fundamental principle, and hence did not obtain good results. I voted *bromide of ethyl* a failure, because, in common with other experimenters, I was too timid, or, rather, I should say, too ignorant of its peculiarities, to push the *ethyl* vapor in the concentrated form which I have since found necessary to obtain good results. By my present method of administering it, I can obtain perfect ethylization in patients in from twenty to sixty seconds, and have no after consequences of nausea or dulness of feeling.

"The best inhaler for the giving of *bromide of ethyl* is a thick towel folded into the form of a small cone with closed apex. Between one of the folds of the towel I place a sheet of paper, which makes the cone nearly air-tight. The base of the cone must be wide enough to inclose both mouth and nose. The soft material of which the inhaler is made enables the rim to be kept firmly in contact with the face, so as to exclude air from entering. I always instruct the patient how to make long inspirations, and inform him he must do this, notwithstanding the fact that he will feel somewhat stifled. I also try to give him confidence by assuring him that a very few inspirations will put him to sleep. Usually I make him go through the process of strong inspiratory movements in advance, so that he will know exactly how to proceed. Into this towel cone I pour about one drachm of the *bromide of ethyl* and immediately invert the inhaler over the mouth and nose of the patient, holding its edge down firmly over the face. There is no fear of creating asphyxia, as all air cannot be excluded, and the height of the cone makes a considerable air chamber into which the patient breathes.

"Children usually struggle to escape from the apparatus. The cone, however, must not be removed from the face for an instant until anæsthesia is produced.

At first some patients will resist the breathing of the vapor, but there is no fear that they will not catch their breath in time. Should children cry, it only insures inspiratory efforts, which the more surely and quickly will bring about the introduction of the vapor into the lungs. As a rule, a dozen full inspirations are all that are needed to produce deep narcosis. I recognize this desirable condition by a stoppage of all struggling. I have had deep sleep brought on by the sixth inspiration, when complete relaxation ensues, with quiet breathing, and an absence of reflex irritation should the conjunctiva be touched. The patient retains the usual healthy color of lips and cheeks, as if in ordinary sleep, and the pulse becomes slower and stronger as the narcosis becomes profound. Thirty seconds, as a rule, is sufficient to bring about this desirable condition and have the patient ready for operation.

"I have not found this anæsthetic sleep last more than two or three minutes, often not so long."—*Southern Med. Record*, Feb. 20, 1883.

DIPHTHERIA.—From answers received to a series of questions sent out by the *Therapeutic Gazette*, the editor briefly summarizes as follows:

1. Diphtheria may be either local or constitutional in its origin.

2. It may continue as a purely local or as a purely constitutional disease, or the local disease may be followed by constitutional infection, or *vice versa*—the disease in the vast majority of instances manifesting itself in both the constitutional disturbance and the local affection.

3. The comparative value of local and constitutional remedies is dependent upon the nature of the affection in individual cases.

4. Diphtheria is a contagious disease, but not liable to attack a healthy mucous membrane or to find an entrance through it into the circulation.

5. The contagium of diphtheria is not a micrococcus, nor is it visible under the most powerful microscope yet manufactured.

6. The contagium of diphtheria is of a gaseous nature (the result of decomposing fecal and other organic matter), and can be neutralized only by a true disinfectant and not by an antiseptic.

7. The best local application is the tincture of the *chloride of iron*. It may be supplemented by other applications according to the indications in individual cases.

8. In a typical case of asthenic diphtheria, administer large (10 grains) and frequently repeated (hourly) doses of *calomel* until the characteristic stools are secured. Following this give large doses of the tincture of the *chloride of iron* every two hours, and administer *alcohol* within the limits of intoxication. In asthenic cases the *calomel* should be omitted and the main reliance placed on the *iron* and *alcohol*.

EXPERIMENTAL RESEARCHES ON ALCOHOLIC POISONING.—During the past five years Drs. Audigé and Du-jardin Beaumetz, of Paris, have been experimenting on the toxic properties of the various alcohols; the subjects of their experimentation being dogs and swine. Their later experiments on chronic poisoning have been on hogs.

The results of their studies on acute poisoning are embodied in a stout octavo volume of about four hundred pages.

The least toxic of the alcohols is *ethyl alcohol*, from vinous fermentation; the most toxic is *amyl alcohol* (*potato spirit*, *fusel oil*).

The more impure the *alcohol* which was used in these experiments, the more marked the symptoms and the pathological lesions to which it gave rise. *Alcohol* which was the genuine product of vinous fermentation, and thoroughly rectified spirits generally, were administered with comparative impunity.

THE ADVANTAGES OF IMMEDIATE OPERATION FOR LACERATED CERVIX.—Dr. E. P. Murdock thus concludes a paper on this subject (*West. Med. Rep.*, June, 1883):

1. It is in accordance with the well-established maxims of all good surgery that the operation to repair an injury should be performed at the earliest possible moment, to secure union by first intention, to prevent deformity, and to prevent sepsis.

2. It saves the incalculable annoyances of preparatory treatment with its physical burdens and mental anxiety contemplating a secondary operation.

3. It gives the patient the best possible chance to escape septicæmia, subinvolvement, and all the other complications which follow cervical lacerations.

4. It saves the patient much time, great expense, and avoids a deformity which in many cases would never be repaired by plastic surgery.

READY METHOD OF OBTAINING LOCAL ANÆSTHESIA.

—Dr. Cheize, in the *Jour. de Med. & de Chir. Pratique*, says: The want of a Richardson's atomizer I recently supplied in the following manner: A young girl presented herself with inverted toe-nails and solicited an immediate operation, i. e., extirpation. I saturated with *ether* a piece of cotton wadding of the size of five francs, and placed it upon the big toe, and with a common hand bellows I blew on it for a few minutes, until complete evaporation had taken place.

I saturated the cotton wadding a second time, and again manipulated the bellows. In less than five minutes anæsthesia was complete. I extirpated the ingrown nail, and applied to the matrix the actual cautery without the patient experiencing the least pain. I had to exhibit the extirpated nail in order to prove to her that the operation was complete.

THE USE OF COFFEE IN STRANGULATED HERNIA.—

Dr. Antonio Sarra relates that he was called one evening to a man sixty-three years of age, suffering from a strangulated femoral hernia. The patient was nearly moribund, there was no appreciable radial pulse, the face was pinched, the extremities were cold, and the attempts to vomit almost incessant. Happening to remember the report of a similar case relieved by *coffee*, Dr. Sarra ordered an infusion of this substance to be employed as a drink and also externally, and then took leave of the patient, warning the family that death was inevitable unless a prompt amelioration ensued. Upon returning early the next morning he was surprised to find his patient in perfect health. The man stated that soon after taking the *coffee* he experienced a feeling of warmth and returning strength, then a large quantity of gas was expelled above and below, and when he put his hands upon the tumor it at once slipped back into the abdominal cavity, much to his astonishment as well as joy.—*Lyon Medical*, May 20, 1883.

INTERESTING PHYSIOLOGICAL EXPERIMENT.—Dr. William James, of Harvard University, has made some experiments to test the modern theory that the semi-circular canals, instead of being connected with the sense of hearing, serve to convey the feeling of movement of the head through space, which, when intensified, becomes dizziness (*Popular Science Monthly*). It occurred to him that deaf mutes, having their auricular organs injured, might afford some corroboration of the theory, if it were true, by showing a smaller susceptibility to dizziness than persons with normal hearing. Of 519 deaf mutes examined by subjecting them to a rapid whirling, 186 were wholly insusceptible of being made dizzy, 134 were made dizzy in a very slight degree, and 199 were normally, and in a few cases abnormally sensitive. Nearly 200 students and instructors in Harvard College, supposed to have normal hearing, were examined for purposes of comparison, and but a single one proved exempt from vertigo.—*Weekly Med. Review*.

It has long been suspected that the horse is at times affected with a kind of scarlatina. Dr. Stickler has reported in *Medical Record* a number of vaccinations with mucus from the Schneiderian membrane of the horse affected with this modified scarlatina. He vaccinated twelve patients who had never had scarlatina with the equine virus and after all symptoms from that had subsided he injected, subcutaneously, some human scarlatinal blood. The vaccinations with the equine virus were all followed by symptoms characteristic of mild scarlatina; the after injections of scarlatinal blood produced no effect whatever. From these experiments he adduces the following points:

First. The safety in using subcutaneously the virus obtained from the horse.

Second. That when this virus is implanted in the human tissues, there follows a local eruption similar to that seen in mild cases of scarlatina.

Third. The system appears to be protected against the action of the human scarlatinal poison after vaccination with the equine virus.

COLORLESS TINCTURE OF IODINE:

R. Tinct. iodine.....7 drachms.
Aque ammoniac.....1 drachm.
Carb. acid.....10 drops.

Shake a few minutes; keep from the light.—*Druggist.*

IODINE AN ANTIDOTE FOR SNAKE-BITE.—Dr. G. H. Carpenter, of Moorefield, W. Va., writes to the *Medical News*, April 21, 1883, that he has secured excellent results in two cases of poisoning by the bite of the copperhead, from the internal administration of *tinct. iodini comp.*, fifteen drops in a third of a glass of water, and the local application of the *tinct. of iodine* to bitten part.

COMEDONES.—The remedy is *acetic acid*, which is conveniently applied in the following way: make an ointment of *kaolin* (potter's clay), four parts; *glycerine*, three parts; *acetic acid*, two parts. Cover the part affected in the evening; after several days most of them come out by washing with pumice soap.—*Am. J. Phar.*

APOMORPHIA A SAFE, CERTAIN AND QUICK EMETIC.—A writer in the *Brit. Med. Journal* recommends *apomorphia*, used hypodermically, in cases obnoxious to ordinary emetics. He prepares a solution containing a grain of *chloride of apomorphia*, twenty minims of rectified spirits and water to two drachms, of which he injects ten minims, which equals one-twelfth of the grain. There is no nausea or bad after-effect.

In cases of alcoholic and narcotic poisoning, *apomorphia* is a most valuable remedy, and will prove a speedy cure for acute gastralgia and convulsions in children due to overloaded stomach.

PRESERVATION OF DECEASED BODIES.—Every corpse that is taken to the Paris morgue is now quickly converted into a block almost as hard as stone. This result is obtained by Carré's chemical refrigerator, which is capable of reducing the temperature of the conservatory where each body is laid out on something closely resembling a camp bedstead in stone, to 15° below zero Centigrade. At the back of this room is a row of stove-like compartments, in which the corpses are boxed up and frozen hard before being exposed to public view. As an illustration of the intense cold thus artificially secured, a Paris journal in describing a recent visit to the morgue, says that in opening one of the compartments, the attendant took the precaution to wear a glove, lest his hand should be burned by contact with the cold iron. The corpse which was taken out of its receptacle had been there nine hours. The doctor who accompanied the visitor struck the dead man on the breast with a stick, and the sound was just as if he had struck a stone.—*Scientific American.*

THE NATURE OF SOFT CHANCRES.—From the *Med. Chir. Centralb.*, Feb. 16, 1883, we learn that Dr. Moritz Winter believes that the so-called soft chancre originates from a modification of the syphilitic virus, but is then a separate disease, and can never serve as a source of pure syphilitic contagion.

THE USES OF CREOSOTE.—From the *Analyst*, No. 80, Vol. 7, we learn that pure *creosote*, not *carbolic acid*, proves beneficial to consumptives and sufferers from chronic catarrh; but it is also markedly anti-asthmatic. The proper adult dose is from $\frac{1}{2}$ to $\frac{2}{3}$ of a grain two or three times daily. The maximum single dose is $\frac{3}{4}$ of a grain. It is best given in pills made of two parts of yellow wax and one of *creosote*.

LEPROSY (says the *Cin. Lan. and Clinic*) is getting to be quite common in the United States. Four cases are now reported in Charity Hospital, New Orleans. Is there no danger of the disease becoming "at home" on our Southern coast unless means are taken to prevent it?

THE BRAND TREATMENT OF TYPHOID FEVER.—From the *Medical Press*, April 11, 1883, we learn that at the Académie de Médecine M. Peter made a vigorous attack on the Brand treatment of typhoid fever, which he styled as brutal and dangerous. The cold bath not only affected the temperature, but had a well recognized deleterious action on the whole organism. The Lyons medical staff, who had adopted the Brand treatment, very generally reported that, under the cold bath treatment, the mortality rose two per cent. above the average.

MISCELLANY.

—*Picrotozine* has been found to produce an artificial epilepsy.

—*Mercury, turpentine* and *nitric acid* form a powerfully explosive mixture.

—Mr. Edison's patents now number 396; more than were ever before granted to one man.

—Myomatous tumors, growing in the ciliary muscles, are often mistaken for ciliary staphyloma.

—In attempting to compound *tannic acid* and *potassium chlorate* the chemicals suddenly exploded.

—Prof. Carl Von Hecker, the great obstetrician of Munich, died recently, in the fifty-sixth year of his age.

—The third international otological congress will be held at Basle, during the first week of September, 1884.

—Prof. Baumler, of the University of Fribourg, applies an ice-bag to the chest to relieve the pleuritic pains of pneumonia.

—Injection of a *nævus* with *perchloride of iron* produced immediately fatal results in a surgical clinic at Chicago recently.

—Among the million of paupers aided by the public charities of England in 1865 there were eight hundred thousand drunkards.

—Lawson Tait has published a report of one hundred more ovariectomies without any of the Listerian details, with only three deaths.

—Probably the smallest abrasions, as those of the lips and face, may open the gates to the admission of erysipelas in one who has previously had it.

—Prof. R. Ludlam has been requested by the faculty of Hahnemann College, Chicago, and will deliver a special course of lectures on puerperal diseases during the coming winter.

—Schnaubert recommends highly an exclusive milk diet in cases of exophthalmic goitre. He reports three cases very favorably influenced by such diet.

—The cost of cremating seven thousand bodies per annum at Bombay is said to be only \$15,000, or rather less than two dollars and a quarter for each corpse.

—Hyrtil, the anatomist, regards the tartar which collects on the teeth as a natural means intended for their preservation, the dentists to the contrary notwithstanding.

—It has been laid down as a rule by a well-known authority (says the *Brit. Med. Journ.*) that no one bathing for health only should remain in the open sea for more than ten minutes.

—A State Board of Examiners, the greatest need of the profession in the State of New York. A mixed board, the only efficient one attainable under present conditions. —*Buffalo Med. and Surg. Journal.*

—Inhalations of steam containing oil of eucalyptus, generated from the leaves, are highly recommended in diphtheria by a writer in the English *Lancet*. Thirty-seven cases of recovery are reported.

—MM. Paul Hélot, surgeon to the Rouen Hospital, and Q. Trouvè, have devised an electric lamp to be worn on the forehead in the examination of cavities. The light is very intense and will last for hours.

—An "Anæsthetist" is the latest medical title. It has been bestowed upon a medical officer of the Chelsea Hospital. An anæsthetist (remarks the *Medical Record*) may be described as a person who excites no feeling.

—Hypodermic injections of morphia over strangulated hernia have been used with remarkably favorable results lately. Many cases yielded after all other measures had been tried and the knife seemed the only resort.

—Dr. Ella R. Swinney, whose practice is very large at Smyrna, Del., goes out soon as a medical Baptist missionary to Shanghai, China, and will be the first homœopathic physician sent out by any board to that vast empire.

—Dr. John C. Dalton, the well-known physiologist, has resigned his position as professor of physiology at the College of Physicians and Surgeons which he has held for so many years. He will be succeeded by Dr. John G. Curtis.

—Lumbago may be quickly relieved (*Scientific American*) by binding a piece of oil-skin cloth, such as is used to cover tables, over the loins outside of the flannel shirt. Profuse perspiration is produced, which rapidly relieves the pain.

—Another modification of Sims' speculum is reported from Germany. From the cut and description it appears simple and promising. It is claimed that its use leaves both hands of the surgeon free, and requires no attention from an assistant.

—The observations of two Italian investigators have developed the fact that in 67 per cent. of males and 86 per cent. of females the apex beat of the heart is in the fourth intercostal space and not in the fifth, as has been generally considered the rule.

—Irrigation of the stomach seems, from the journal and society reports, to be a measure attended with great benefit in cancer of the stomach, while in catarrhal conditions it may produce cures, and that, too, in a comparatively short space of time.

—Dr. Mary P. Root, a recent graduate of the Woman's Medical College, Philadelphia, was one of the twelve resident physicians of the Philadelphia Hospital who secured the situation by competitive examination. She was among the highest on the list.

—Prof. Simpson, of Edinburgh, has invented an obstetrical instrument which he calls the basilyst. It acts both as a perforator and a crushing instrument. By its use the base of the skull may be crushed after perforation, etc., and the use of the cephalotribe dispensed with.

—A new substance, remarkable for its intense sweetness, being much sweeter than cane-sugar, has lately been found by Dr. Fohlberg, in the course of some investigations on coal-tar derivatives. (*Jour. Frank. Inst.*) He designates it benzoic sulphonide or anhydro sulphamine benzoic acid.

—In view of our present knowledge of disease and its cause, as found in germs, etc., every physician (says the *Cin. Lan. and Clinic*) should, when he enters the sick room or visits a patient at his office, have his face protected by a wire muzzle, filled with absorbent cotton soaked in any of the numerous "germicides."

—Alcohol by olfaction, by means of a saturated sponge or of cotton wool, is the most efficient treatment of acute or chronic nasal catarrh and of hay fever. It should be applied each day and continued until it does not excite increased secretion of mucus. The cure is safe, rational, and in accordance with most advanced therapeutic research.

—Dr. T. M. Strong, Chief of Staff, reports 947 patients treated at the Homœopathic Hospital, W. I., for July (being 177 more than for the corresponding month in 1882), with a death rate of 3.17 per cent.; 4,189 patients have been treated in the first seven months of this year, against 3,318 for the corresponding time last year, with a mortality of 5.11 per cent.

—The *Medical Era*, edited by Dr. Gross and published by Gross & Delbridge of Chicago, the second number of which has been received, is a most sprightly young journal, and our readers cannot do better than to send their subscriptions to it. Our Western colleagues have a strong rival in the *Era*, and if it inspires improvement in the contents of some it will have done a good work.

—In the brain of a patient, who died in one of the Vienna hospitals, was found after his death an iron nail covered with rust, which, to all appearances, must have been there since early childhood. The man was about forty-five years of age, a book-binder, and always passed for intelligent. At irregular intervals he had had epileptic attacks, and post-epileptic mental phenomena while in the hospital.

—The violent exertions put forth by some players of lawn tennis have caused the rupture of tendons, both in the forearm and calf of the leg. The English medical writers are beginning to relate their experiences with "lawn tennis leg" and "lawn tennis arm." The catalogue of injuries that violent recreations bring about is almost as large as that incurred in the course of the proper struggle for existence.

—The discovery of the plax-scindens in oysters, and other shell fish, now that this microbe is known to cause scarlatina, awakens fresh interest in the professional mind. The learned and able Dr. Eklund, of Sweden, hints at the possible vaccinal protection against scarlet fever from the introduction of the schizomycetes which he has found in oysters. It would appear strange if the oyster should supply us with a germ which shall as effectually protect us from scarlatina as that supplied by the cow protects us from the small-pox.

—PRACTICE FOR SALE.—Desirable, growing practice on sea shore near New York. Sell furniture, horse, phaeton, medicine, etc., or practice alone. Introduce successor. Established ten years. No other homœopath. Price nominal. Possession Sept. 1. Dr. B., Lock Box B, Woodsburg, Long Island. N. B. No postals answered.